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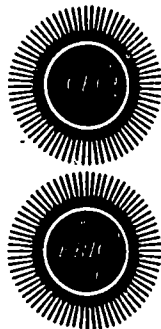
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DESCRIPTORS *Abstracts; *Annotated Bibliographies; *Exceptional Child Research; Mentally Handicapped; *Mongolism; *Trainable Mentally Handicapped

ABSTRACT

The selected bibliography of research on trainable mentally handicapped children contains approximately 93 abstracts with indexing information explained to be drawn from the computer file of abstracts representing the Council for Exceptional Children Information Center's complete holdings as of August, 1972. Abstracts are said to be chosen using the criteria of availability of document to user, currency, information value, author's reputation, and classical content. Preliminary information explains how to read the abstract (A sample abstract is included which identifies the different parts of the abstract), how to use the author and subject indexes, how to purchase documents through the Educational Resources Information Center Document Reproduction Service (an order blank is provided), an order blank for Exceptional Child Education Abstracts in which the abstracts are originally published, a list of indexing terms searched to compile the bibliography, and a list of journals from which articles are abstracted for the bibliography. Publication data of documents abstracted ranges from 1958 to 1971. (CB)

ED 069075



TRAINABLE MENTALLY HANDICAPPED— RESEARCH

A Selective Bibliography

August, 1972

CEC Information Center on Exceptional Children
An ERIC Clearinghouse
The Council for Exceptional Children
Jefferson Plaza, Suite 900
1411 S. Jefferson Davis Highway
Arlington, Virginia 22202

Exceptional Child Bibliography Series No. 641

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Sample Abstract Entry

Clearinghouse accession number → EC 01 0769

Publication date → Publ. Date Jun 68

Author(s) → Hensley, Gene, Ed.; Buck, Dorothy P., Ed.

Title → Cooperative Agreements between Special Education and Rehabilitation Services in the West. Selected Papers from a Conference on Cooperative Agreements (Las Vegas, Nevada, February, 1968).

EDRS mf, hc indicates document is available in microfiche and hard copy. → EDRS mf, hc

Abstract number used in Indexes → ABSTRACT 769

ERIC accession number. Use this number when ordering microfiche and hard copy → ED 025 864

Number of pages. Use this figure to compute cost of hard copy. → 44p.

Institution(s) → Western Interstate Commission For Higher Education, Boulder, Colorado; United Cerebral Palsy Research And Education Foundation, Inc., New York; Rehabilitation Services Administration (DHEW), Washington, D. C.

Contract or grant number → VRA-546T66

Descriptors—subject terms which characterize content → Descriptors: exceptional child education; cooperative programs; vocational rehabilitation; vocational education; administration; mentally handicapped; state agencies; cooperative education; educational coordination; cooperative programs; state federal aid; administrative problems; communication problems; equalization aid; work study programs; handicapped; cost effectiveness

Summary → Five papers discuss cooperative work-study agreements between schools and vocational rehabilitation services in the western states. Areas discussed include the advantages of cooperative agreements, the forms and disadvantages of third party agreements, basic concepts of the programs, and an outline form to use when applying for matching funds; the relationship of special education, rehabilitation and cooperative plans, programs, and agreements; and California's past and present work study programs for the mentally retarded. Also reviewed are research demonstrating the economic feasibility of vocational training for the educable mentally retarded in the public schools and communication problems in work study programs. The conference summary considers the purposes, goals, essence of, and necessity for cooperative agreements. (MK)

Abstractor's initials → (MK)

*NOTE: EDRS mf indicates microfiche reproduction only.

Terms Searched

Index terms used to retrieve information on *Trainable Mentally Handicapped—Research* from the Center's computer file of abstracts are listed alphabetically below:

<i>Downs Syndrome</i>	<i>Trainable Mentally Handicapped</i>
<i>Exceptional Child Research</i>	<i>Mongolism</i>
<i>Mentally Handicapped</i>	

Journals

Abstracts of journal articles from the following periodicals appear in this bibliography:

American Journal of Mental Deficiency
Behavior Therapy
Child Development
Children
Education and Training of the Mentally Retarded
Exceptional Children
HSMHA Health Reports
Journal of Music Therapy
Journal of Personality Assessment
Journal of Psychology
Journal of Speech and Hearing Disorders
Mental Retardation
Rehabilitation Literature
Research Bulletin
Research Quarterly
Social Work
Teaching Exceptional Children
Training School Bulletin

The abstracts in this bibliography were taken from *Exceptional Child Education Abstracts*, Vol. I-III

ABSTRACTS

ABSTRACT 10114

EC 01 0114 FD 014 823
 Publ. Date Mar 63 126p.
 Tobias, Jack
Training for Independent Living, a Community Program for Severely Retarded Adults.
 Association for Help Retard. Child.,
 New York, New York
 National Inst. of Ment. Health, Washing-
 ton, D.C.
 EDRS mf,hc

Descriptors: exceptional child research; community programs; mentally handicapped; vocational rehabilitation; trainable mentally handicapped; day care programs; custodial mentally handicapped; demonstration programs; educable mentally handicapped; adults; occupational therapy; program evaluation; program planning; self care skills; travel training

An occupational day center for mentally retarded adults was established to provide community services for retarded persons who live at home and, although beyond school age, are unable to participate in sheltered workshop activities. The staff included a director, a social worker, five instructors, a training supervisor, an office worker, and a psychologist (part-time). Over a 3-year period, 83 clients were accepted into the program with about 55-60 being enrolled at one time. Average age at admission was 21 years (few clients were over age 30), and IQ's ranged from 15 to 65 with a mean IQ of 36. About 80 percent had attended public school special classes. Specific training included travel training, grooming and self care, orientation to the community, domestic skills, and remunerative work. Simple academic instruction included reading signs, telling time, and using money. Statistical tests with data from the clients produced these findings. There was a significant relationship (.01 level using T test) between intelligence and the ability to benefit from travel instruction. There was a significant relationship (.001 and .05 levels for various IQ groups using tests) between intelligence test score and the number of work units produced per hour. Mongoloid clients were significantly less productive (.05 level using test) in a continued work activity than their intellectual peers in other etiologic groups. The San Francisco Social Competency scores of clients are presented. Sample evaluations of trainees and sample case studies are included. Descriptions of the daily program and relationships with parents, professional groups, and the public are given. (JZ)

ABSTRACT 10363

EC 01 0363 ED 019 766
 Publ. Date 66
 Ehlers, Walter H.
Mothers of Retarded Children, How They Feel, Where They Find Help.

EDRS not available

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); parent attitudes; parents; psychological needs; mothers; mother attitudes; interviews; special services; community services; counseling services; field interviews; health services; socioeconomic status; day care services; social services; psychological services; medical services; case studies (education); minimally brain injured

The research study investigated how mothers of mentally retarded children perceived the retardation, how they made decisions in seeking and using help, and how they reacted to and valued services rendered. The 24 subjects were mothers whose retarded children were classified as brain injured (including mongoloid), had IQ's below 54, and were less than 10 years of age. A field study approach with a focused interview was employed. In addition, interview data, case records, related documents, and interviews with the clinic staff were analyzed. Information is included on (1) the children, the families, and the service program, (2) the mothers, and (3) the services of the clinic. Implications are drawn from the summary, findings, and conclusions of the study. Significant services now available and prospects for the future are discussed. Appendixes give (1) characteristics of the families, (2) organization and classification of instructional groups, (3) data guide, and (4) recommendations of the President's Panel on Mental Retardation. A bibliography lists 151 entries. This book was published by Charles C. Thomas, Bannerstone House, 301-327 East Lawrence Avenue, Springfield, Illinois 62703, and is available for \$6.75. (Df)

ABSTRACT 10446

EC 01 0446 ED 015 604
 Publ. Date May 67 123p.
 Kershner, John R.
An Investigation of the Doman-Delacato Theory of Neuropsychology as It Applies to Trainable Mentally Retarded Children in Public Schools.
 Pennsylvania Dept. of Public Instruction,
 Harrisburg
 EDRS mf,hc

Descriptors: exceptional child research; mentally handicapped; cognitive processes; child development; learning; trainable mentally handicapped; neurological organization; intellectual development; physical development; children; experimental programs; intelligence quotient; perceptual motor learning; physical activities; physical education; psychomotor skills; public schools; research projects; Doman Delacato Developmental Profile; Kershner Dusewicz Kershner Revision; Oseretsky Tests of Motor Proficiency; Peabody Picture Vocabulary Test

Two intact classes of public school trainable mentally retarded children were used to study the effects of physical activities derived from the Doman-Delacato theory of physical and intellectual development. The experimental group consisted of seven males and six females from age 8 to 18, and the control group consisted of 10 males and six females from age 8 to 17. All subjects were given the following pre- and posttests: (1) a mobility scale derived from the Doman-Delacato Developmental Profile, (2) the Kershner-Dusewicz-Kershner Revision of the Vineland Adaption of the Oseretsky Tests of Motor Proficiency, and (3) the Peabody Picture Vocabulary Test. The experimental program was extended through 74 teaching days that approximated 5.5 hours each and included activities consistent with the Doman-Delacato theory. For the control group the curriculum involved a number of nonspecific activities that could give opportunities for praise and attention equal to that received by the experimental group. Hypothesis 1 stating there is a significant improvement in creeping and crawling performance favoring the experimental group was accepted since the Mann-Whitney U Test comparing pre-posttest gain scores between groups found differences statistically significant at the .05 level. Hypothesis 2 stating there is a significant improvement in perceptual-motor proficiency favoring the experimental group was rejected since the Mann-Whitney U Test comparing pre-posttest scores between groups found the differences were not statistically significant at the .05 level. Hypothesis 3 stating there is a significant mean IQ improvement favoring the experimental group was accepted since an analysis of variance produced correlation coefficients between the pretest and posttest scores for the experimental and control groups of .81 and .95 respectively and a difference statistically significant at the .05 level. The treatment had a facilitating effect on both the physical and intellectual development of the experimental group. Replication and larger scale investigations are needed. Appendixes include the creeping and crawling scale and the Kershner-Dusewicz-Kershner Revision of the Vineland Oseretsky Tests of Motor Development. A bibliography lists 56 items. (Df)

ABSTRACT 10595

EC 01 0595 ED 021 376
 Publ. Date 67 99p.
 Wolstenholme, G. E. W., Ed.; Porter, Ruth, Ed.
Mongolism, CIBA Foundation Study Group Number 25.
 Ciba Foundation, Basle, Switzerland
 EDRS not available
 Little, Brown, and Company, 34 Beacon Street, Boston, Massachusetts 02106 (\$3.50).

Descriptors: exceptional child research; mentally handicapped; mongolism; research projects; medical research; biochemistry; genetics; heredity; medical evaluation; conference reports

Resulting from a 1-day conference on mongolism, the book contains research studies and discussion summaries. Papers include Parental Age, Live-Birth Order, and Pregnancy-Free Interval in Down's Syndrome in Japan by E. Matsunaga, Consanguineous Marriages and Mongolism by H. Eoressman and H.O. Akesson, Correlation of Dermal Patterns on Finger-Tips and Toes in Mongolism by G.F. Smith, A Suggested Use of Dermatoglyphic Analysis in Mongolism by L.S. Penrose, DNA Synthesis in Cells Grown in Tissue Culture from Patients with Mongolism by U. Mittwoch, DNA Replication Patterns of Chromosomes Numbers 21-22 in Female Mosaic Mongols by M. Fraccato and others, and Abnormal Granulocyte Kinetics: An Explanation for the Atypical Granulocyte Enzyme Activities Observed in Trisomy 21 by W.J. Mellman and others. Tables, figures, photographs, and reference lists are given. A historical introduction to J.L. Down is provided, along with an explanation of the conference's sponsorship and a list of foundation officials and conference participants. (BW)

ABSTRACT 10832

EC 01 0832 ED 025 891
Publ. Date 13 Sep 68 41p.
MacCubrey, Mary Katherine
Verbal Operant Conditioning of Young Mongoloid Children. Final Report.
Saint Anne's School, Arlington Heights, Massachusetts
Office of Education (DHEW), Washington, D. C., Bureau of Research
EDRS mf,he
OEC-0-8-084038-4465(032)
BR-8-4038

Descriptors: exceptional child research; mentally handicapped; verbal development; behavior; operant conditioning; case records; trainable mentally handicapped; mongolism; institutionalized (persons); verbal ability; language skills; group instruction; verbal operant conditioning; measurement instruments; reinforcement; behavior change; language usage; teaching methods; speech skills

Operant conditioning techniques were used to modify verbal behavior in 18 institutionalized, trainable mentally handicapped mongoloids with chronological ages from 4-6 to 7-10 and mental ages from 2.0 to 2.10. Two instruments were constructed to evaluate language: a language test and a speech rating scale. Project leaders had no prior knowledge of the language test. The six children in group 1 received five 15- to 40-minute group conditioning sessions daily. Shaping was used to condition object and picture naming, descriptions of action pictures in word combinations, and discrimination of colors and polar opposites. Operant procedures were used to lengthen attention span and increase verbal production. The six children in group

2 spent 7 weeks in the enriched experimental environment, but received no conditioning; the six in group 3 remained in the institution. Five of six members of group 1 significantly increased their scores on the Stanford-Binet posttest; one from group 2 and none from group 3 increased significantly. On the speech rating scale, group 1 showed significantly greater improvement than group 2. Major changes were observed in the social behavior of the 12 subjects who resided in the research facility. (Author/RP)

ABSTRACT 10835

EC 01 0835 ED 002 968
Publ. Date Jun 61 260p.
Cain, Leo F.
A Study of the Effects of Community and Institutional School Classes for Trainable Mentally Retarded Children.
San Francisco State College, California
EDRS mf,he
OEC-SAE-8257
CRP-589

Descriptors: exceptional child research; mentally handicapped; environmental influences; public schools; institutional schools; day students; trainable mentally handicapped; public education; mental retardation; family environment; institutional environment; environment; parent child relationship; children; social development; out of school youth; institutionalized (persons)

The major hypothesis of the project was that trainable mentally retarded children attending school programs, whether living at home or in an institution, would show greater increments of social competence over a period of time than comparable children not attending such programs. It was also suggested that parents of retardates who attend public school classes in their communities would show greater increments of adaptability than those whose children do not attend such classes. From about 180 children, four groups were formed: community control, community experimental, institutional control, and institutional experimental. The experimental groups attended public school/classes for trainable children while the control groups did not. Ratings on the criterion measures were obtained at the initiation and conclusion of the 2-year experimental period. Parents of the community groups were visited and interviewed four times during the project/period. Analysis of findings showed significant increases in the social competency development for the community groups and comparable decreases for the same in the institutional groups. Developmental differences between the school and nonschool children, whether living at home or not, were insignificant. It was therefore concluded that school programs for trainable mental retardates were inadequate in fostering social competency development. Also, the environment of a home appeared to be much more stimulating for social development than the institutional environment. Parental adaptability appeared not to benefit when children attended school,

possibly because of lack of parent-teacher contacts as well as inadequacy of the few contacts that occurred. (JH)

ABSTRACT 10836

EC 01 0836 ED 002 845
Publ. Date 59 109p.
Harris, Dale B.; Shechtman, Audrey
A Study of the Modification of Parental Attitudes toward an Understanding of Mentally Retarded Children.
Minnesota University, Minneapolis, Institute of Child Development
Office of Education (DHEW), Washington, D. C.
EDRS mf,he
OEC-SAE-7774
CRP-365

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); counseling; family counseling; mental retardation; family problems; parent attitudes; day care services; small group instruction; parent education; group therapy; trainable mentally handicapped

The effect of contact with personnel of a day care center was compared with various methods of counseling in assisting parents of trainable retarded children to adjust to the family problems created by the retardation. Major objectives were as follows: to compare attitude change among parents who obtain counseling through incidental contacts with personnel in a day center and through a small group discussion meeting held regularly at the day care center; to compare attitude change among students whose parents were subjected to the varying counseling patterns; to compare factual information gains among the three parent groups; and to analyze the change among parents in the three groups in relation to the personality of the parent, the parent's level of education, and the severity and type of defect of the child. The findings were essentially negative. No evidence could be developed that one method was superior to others, or, indeed, that any group showed significant gain on any information, attitude, or skill variable. Nevertheless, the indirect evidence acquired seemed significant. Parents seemed to benefit in self feeling and self attitude through agency contact. More lengthy contact between agencies and parents was therefore recommended. (JL)

ABSTRACT 11021

EC 01 1021 ED N.A.
Publ. Date Feb 67 4p.
White, James C., Jr.; Taylor, Donna J.
Noxious Conditioning As a Treatment for Rumination.
Western Carolina Center, Morganton, North Carolina
EDRS not available
Mental Retardation; V5 N1 P30-3 Feb 1967

Descriptors: exceptional child research; mentally handicapped; behavior; reinforcement; operant conditioning; physical development; electrical stimuli; behavior change; institutionalized (persons); custodial mentally handicapped; negative reinforcement

Two severely mentally retarded, non-communicative ruminators, a 23-year-old female and a 14-year-old male, were administered electric shock as a consequence for ruminating gestures. The female was involved in the study for 30 days while the male was fully or partially involved for 2 1/2 months. The shock was a distracting device which interfered with the ruminating syndrome. However, the reduction in rumination was extremely variable from day to day. No functional relationship between shock and rumination was reported, as extraneous environmental factors also served to distract. At termination of the treatment, the female showed a 15% weight increase over her previous 45 pounds, a reduction in akinetic seizures, and an increase in liquid intake. The male subject showed a small weight gain, counteracting a 31 pound loss over several preceding months. (FL)

ABSTRACT 11101

EC 01 1101 ED N.A.
 Publ. Date Jun 65 6p.
 Gorton, Chester E.; Hollis, John H.
Redesigning a Cottage Unit for Better Programming and Research for the Severely Retarded.
 Parsons State Hospital and Training Center, Kansas;
 Kansas University, Lawrence, Parsons Research Project
 National Institute of Mental Health, Bethesda, Maryland
 EDRS not available
 Mental Retardation; V3 N3 P16-21 Jun 1965

Descriptors: exceptional child research; mentally handicapped; behavior change; custodial mentally handicapped; institutionalized (persons); institutional facilities; design needs; self care skills; attendant training; perceptual motor coordination; stimulus behavior; institutional research

To meet needs evident at the state hospital and training school, a system of care, treatment, and training for the severely mentally handicapped was developed. Subjects were 18 girls, aged 6 to 12, with IQ's less than 25. The cottage unit in which the girls lived was modified from a single large room, which appeared to limit social interaction between the girls and the aides, to provide environmental structure and control. A cubicle system was designed, but later abandoned to facilitate monitoring; an operant area with three large tables was then established and found successful in keeping the subjects off medication and out of diapers. A 12-session training program was conducted for the aides in methods of observation, reinforcement, and grouping; interaction increased and personnel turnover decreased. Feeding training was also given the subjects, nine of whom did not spoon feed themselves; after 18 months, all 18 achieved self feeding. Additional progress was made in other self care skills over 3 years of the study. Studies were also conducted concerning perceptual motor skills, effects of social and nonsocial stimuli on behavior

for communication behavior, social dominance, and differential responses to social stimuli. Three figures and two photographs present the architectural modifications. (DD)

ABSTRACT 11229

EC 01 1229 ED 002 869
 Publ. Date 59 110p.
 Cain, Leo F. and Others
Study of the Effect of Special Day Training Classes for the Severely Mentally Retarded. Final Report of Phase II.
 San Francisco State College, California
 Office of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 OEC-SAE-6439
 CRP-416

Descriptors: exceptional child research; behavior; personality; family (sociological unit); mentally handicapped; behavior change; behavior rating scales; family relationship; educational programs; special classes; parent attitudes; social adjustment; social development; trainable mentally handicapped; interpersonal competence; institutionalized (persons); placement; public schools; institutional schools

The second phase of a three-part report on social competency and parent adaptability, this study assessed changes in the behavior of severely retarded children as a result of school attendance. The subjects were placed in an experimental group of school children and a control group of nonschool children. All the children were 5 to 12 years old and had IQ's between 25 and 55. The school children attended special classes in public schools and institutions, and the nonschool children lived either at home or in institutions. The social competency was compared between these children, and the parent adaptability was compared between parents of school children and nonschool children. Two new instruments were developed: the San Francisco Social Competency Scale and the Scale for Parent Adaptability. Information included data from interviews, home visits, family characteristics (age, education, and income), and intelligence tests. The social competency scores considered self help, initiative-responsibility, social skills, communication, and favored institutionalized children, both school and nonschool. The parent adaptability scores included motivation, empathy, flexibility and adaptability, and favored the experimental group (parents with children in school). Parents of institutional children were not graded. (GC)

ABSTRACT 11232

EC 01 1232 ED 002 979
 Publ. Date 58 119p.
 Cain, Leo F. and Others
Study of the Effect of Special Day Training Classes for the Severely Mentally Retarded. March 15, 1957-June 30, 1958.
 San Francisco State College, California
 Office of Education (DHEW), Washington, D. C.
 EDRS mf,hc

OEC-SAE-6439
 CRP-109

Descriptors: exceptional child research; mentally handicapped; behavior; family (sociological unit); program planning; day programs; parent attitudes; parent child relationship; institutional schools; public schools; behavior change; special classes; educational programs; social attitudes; institutional environment; trainable mentally handicapped; placement; interpersonal competence; administration; program evaluation; San Francisco Social Competency Scale; Parent Adaptability Scale

The purposes of the project were to evaluate the behavioral changes that take place within the public and institutional school populations and nonschool populations of severely retarded children, and to evaluate the changes in parent attitude and family adjustment of the parents. This report was confined to the first phase of an ongoing project and was primarily concerned with the major aspects of the planning period: the experimental rationale, the experimental design, and the development of instruments. The experimental design constituted a comparison of the social competency development of severely mentally retarded children in four settings: community school, community nonschool, institutional school, and institutional nonschool. Subjects in all of the groups aged from 6 through 12, had IQ's from approximately 25 through 55. The social competency of these children was determined at the initiation and completion of the 2-year experimental period. The parents of both community samples were interviewed during this same period in order to assess changes in parental adaptability. The two instruments developed were the San Francisco Social Competency Scale and the Parent Adaptability Scale. (GC)

ABSTRACT 11236

EC 01 1236 ED 002 980
 Publ. Date 58 83p.
 Dunn, Lloyd M.; Hottel, John V.
The Effectiveness of Special Day Class Training Programs for Severely (Trainable) Mentally Retarded Children.
 George Peabody College for Teachers, Nashville, Tennessee
 Office of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 OEC-SAE-6425
 CRP-103

Descriptors: exceptional child research; mentally handicapped; behavior; family (sociological unit); trainable mentally handicapped; placement; family relationship; day programs; self care skills; parent child relationship; behavior change; educational programs; special classes; children; behavior development; vocabulary development; intellectual development

The objective was to test the hypotheses that day class training would produce desirable changes in the behavior of the trainable mentally retarded children over

and above those which result when the child remains at home and has no training in school setting, and that school placement of such children would produce desirable changes in the home adjustment of the families involved. First a picture vocabulary scale was developed to measure changes in this aspect of the development of trainable children. Then the subjects were identified, and the experimental design was carried out. In spite of some positive trends, results indicated that the children in the special classes did not make more progress in socialization, intellectual development, self care, or parent-child relations than the children who remained at home. However, the special classes as operated appeared to produce greater changes in the high IQ group. Little evidence accrued to support the contention that day class training for trainable children, as presently constituted, is effective. (GC)

ABSTRACT 11329

EC 01 1329 ED 024 162
Publ. Date 60 74p.

Farber, Bernard and Others

Family Crisis and the Decision to Institutionalize the Retarded Child. CEC Research Monograph, Series A, Number 1.

Illinois University, Urbana, Institute for Research On Exceptional Children;

Illinois University, Urbana, Department of Sociology;

Council for Exceptional Children, Washington, D. C.

Illinois Department of Public Welfare, Springfield, Psychiatric Training and Research Fund.

EDRS mf

The Council for Exceptional Children, NEA, 1201 Sixteenth Street, N. W., Washington, D. C. 20036 (\$2.00).

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); attitudes; trainable mentally handicapped; family background; custodial mentally handicapped; family structure; parent attitudes; parent reaction; marital status; educational background; socioeconomic status; placement; decision making; ecological factors; religious factors; social status; siblings; cultural factors

A case study was made by interviewing 268 couples who had at home a child they considered severely mentally retarded (IQ 50 or below, age 15 or below). Three kinds of effect were investigated, including general effect, effect of social setting (variables being social-psychological, social-organizational, and demographic-ecological), and joint effect. Results on the nature of family crisis indicated that in families with high early marital integration, the extent of initial impact of retardation on the husband was inversely related to the current degree of integration, and in the remaining families no such relationship was found; mothers were more willing to place a retarded boy who was an oldest child than one who was an only child; retarded boys had a greater impact on fathers initially and on mothers currently; and,

especially for husbands, current impact tended to vary directly with initial impact. Results concerning the parents' willingness to institutionalize the child revealed that the higher the social status, the greater the relative willingness of the husband as compared with that of the wife; in high status families, willingness varied directly with the number of normal children in the family; and the lower the social status, the greater the relative willingness of mothers of retarded boys as compared with mothers of retarded girls. (JD)

ABSTRACT 11372

EC 01 1372 ED N.A.
Publ. Date May 69 4p.

Johnson, Ronald C.; Abelson, Robert B. **Intellectual, Behavioral, and Physical Characteristics Associated with Trisomy, Translocation, and Mosaic Types of Down's Syndrome.**

Western Interstate Commission for Higher Education, Boulder, Colorado

National Institute of Child Health and Human Development, Bethesda, Maryland

EDRS not available

American Journal of Mental Deficiency; V73 N6 P852-5 May 1969

Descriptors: exceptional child research; mentally handicapped; mongolism; comparative analysis; physical characteristics; etiology; intelligence differences; behavior problems; institutionalized (persons); Western Interstate Commission for Higher Education

Two hundred and fifty-four trisomy, 21 translocation, and 18 mosaic Down's syndrome cases were compared on intelligence test scores and on rated behavior. The translocations were highest, trisomies intermediate, and mosaics lowest in intellectual ability. Translocation cases tended to be more active and aggressive than trisomies and mosaics. The three groups did not differ in the number or kind of stigmata exhibited. (Author)

ABSTRACT 11382

EC 01 1382 ED N.A.
Publ. Date 66 56p.

Kramm, Elizabeth R.

Families of Mongoloid Children. Welfare Administration (DHEW), Washington, D. C., Children's Bureau

EDRS not available

CB-401-1963

Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402 (\$0.25).

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); family relationship; mongolism; family problems; parent attitudes; interviews; community attitudes; residential care; parent counseling; behavior problems; child rearing; identification

The interview responses of parents of 50 mongoloid children are presented and discussed. The parents' statements explain when and how they learned the child was a mongoloid and describe the child in the home and in the neighborhood with regard to traits, behavior, and

discipline, explaining the child's acceptance by grandparents, brothers and sisters, and neighbors, fears about sexual maturity, and meeting special needs. Aspects of the future are discussed by parents of children on the waiting list for institutional placement and by parents of children not on the list; patterns of the two groups are defined. Responses concerning the effect on the parents' treat marital closeness, family planning, social activities, and personal attitudes. Implications of the study involve information programs, initial counseling, guidance in supervision, services, institutionalization, and research. Two tables and 53 selected references are provided. (LE)

ABSTRACT 11411

EC 01 1411 ED N.A.
Publ. Date Jun 69 4p.

Balthazar, Earl E.; Stevens, Harvey A. **Scalar Techniques for Program Evaluation with the Severely Mentally Retarded.**

International Association for the Scientific Study Of Mental Deficiency, Montpellier, France

National Institute of Mental Health (DHEW), Bethesda, Maryland;

Wisconsin State Department of Health and Social Services, Madison, Special Research Fund

EDRS not available

Mental Retardation; V7 N3 P25-8 Jun 1969

Presented at the First Congress of the International Association for the Scientific Study of Mental Deficiency, University of Montpellier, France, on September 16, 1967.

Descriptors: exceptional child research; mentally handicapped; evaluation methods; custodial mentally handicapped; program evaluation; behavior rating scales; institutionalized (persons); self care skills; interpersonal competence

Because of the requirements imposed by comprehensive programs for severely and profoundly retarded individuals, the Central Wisconsin Colony Scales of Adaptive Behavior were developed. Present findings relate to the mean reliability coefficients of the profile score categories obtained from the Scales as they apply to an ambulant, severely retarded, residential population. Additional findings are concerned with interrater reliability studies and with data provided by a concurrent validity study. In general, the preliminary statistical data were quite consistent and supportive. Further studies are concerned with current investigations of the metric properties of the Scales. (Author)

ABSTRACT 11412

EC 01 1412 ED N.A.
Publ. Date May 69 2p.

Johnson, Ronald C.; Abelson, Robert B. **The Behavioral Competence of Mongoloid and Non-Mongoloid Retardates.**

Western Interstate Commission for Higher Education, Boulder, Colorado

National Institute of Child Health and Human Development, Bethesda, Maryland

EDRS not available

American Journal of Mental Deficiency; V73 N6 P856-7 May 1969

Descriptors: exceptional child research; mentally handicapped; mongolism; social adjustment; behavior patterns; interpersonal competence; communication skills; comparative analysis; self care skills; Western Interstate Commission for Higher Education

Mongoloids show greater social competence, as measured in terms of frequency with which they are capable of certain adaptive behaviors, than do nonmongoloids. However, mongoloids do appear to have a special problem in communicating to others, an area where the mongoloid-nonmongoloid comparison is markedly at variance with all other comparisons. (Author)

ABSTRACT 11525

EC 01 1525 ED 029 427
Publ. Date 68 365p.

Missouri Schools for the Retarded, Title I Project, Program Enrichment for State Schools for Retarded.

Missouri Schools for the Retarded
Office of Education (DHEW), Washington, D. C.
EDRS mf,he

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; state programs; federal aid; enrichment programs; case histories (education); program evaluation; physical recreation programs; preschool programs; televised instruction; video tape recordings; speech therapy; summer programs; inservice teacher education; parent school relationship; home visits; Elementary and Secondary Education Act Title I Project; ESEA Title I Project; Missouri

Enrichment programs conducted in Missouri state schools for trainable mentally retarded (TMR) children under Title I funding in 1967 are evaluated. Charts give the progress of 153 TMR pupils in the physical fitness programs conducted in three schools while case histories indicate improvement of six children in a prekindergarten enrichment program. The progress of a video tape teaching project is mentioned and two examples of pilot filmstrips developed are given. Reports and case histories submitted by speech teachers who conducted oral communication programs for 105 multiply handicapped TMR children in five day schools are presented. Reported by charts and pupil progress reports are results from a 6-week summer school training program offered by training centers to 542 TMR children; twelve independent studies resulting from the summer program are included. An account is given of an inservice teacher institute on new trends in TMR curriculum development which involved 150 teachers and supervisors. Finally, case histories and teacher reports from two schools which have home school coordinators provide

an evaluation of the services obtained to solve children's school and family problems. (SN)

ABSTRACT 11681

EC 01 1681 ED 030 235
Publ. Date 68 18p.

Greenough, Diane

Comprehension and Imitation of Sentences by Institutionalized Trainable Mentally Retarded Children as a Function of Transformational Complexity.

Michigan University, Ann Arbor, Center for Research On Language and Language Behavior.

Mount Pleasant State Home and Training School, Mount Pleasant, Michigan

Office of Education (DHEW), Washington, D. C., Bureau of Research

EDRS mf,he

BR-6-1784

Descriptors: exceptional child research; mentally handicapped; transformations (language); comprehension; imitation; cognitive processes; trainable mentally handicapped; institutionalized (persons); mongolism; pictorial stimuli; verbal stimuli; negative forms (language); kernel sentences; sentence structure; complexity level; deep structure; surface structure; language development

The ability of 31 institutionalized trainable mentally retarded mongoloid and nonmongoloid subjects (mean IQ equals 27.5) to comprehend and imitate verbally presented sentences of varying levels of grammatical complexity was examined. Eight stimulus sentences were spoken for four pairs of pictures, simple declarative or kernel, negative, passive, and negative passive. Subjects were asked to select one of a pair of pictures for each sentence and then to repeat the sentences. They correctly comprehended kernel sentences significantly more often than other kinds of sentences. Among nonmongoloid subjects, imitation of sentences to which one optional transformation had been applied was significantly better than imitation of sentences modified by two potential transformations. Chronological age was significantly associated with imitation ability in nonmongoloids (p less than .04); IQ and imitation ability were significantly associated in mongoloids (p less than .05), indicating that the ability to store verbal material for immediate recall is associated with general intellectual or cognitive abilities. (Author/RJ)

ABSTRACT 11704

EC 01 1704 ED N.A.
Publ. Date Nov 66 5p.

Watkins, Ernest O. and Others

A Novel Hearing Test for Retardates with Mental Ages Below Four Years.

EDRS not available

American Journal of Mental Deficiency; V71 N3 P396-400 Nov 1966

Descriptors: exceptional child research; mentally handicapped; auditory evaluation; trainable mentally handicapped; audiometric tests; test reliability; test validity; tests; intelligence differences; Animal Sound Test

The Animal Sound Test (AST), newly developed for use with trainable mentally handicapped children with mental ages below 4 years was evaluated for validity and reliability; the test, which consisted of vowel-consonant combinations of sound delivered by live voice and matched to appropriate pictures of animals was also compared with two conventional methods of hearing assessment, the Speech Reception Threshold (SRT) and Pure Tone (PT) methods. All three tests were administered to 26 subjects (mean chronological age 108.6 months, mean mental age 37.7 months, mean IQ 36). Results showed a significant relationship between mental ages and performance on all tests (p less than .05), with the subjects of higher mental ages obtaining the lower threshold. More thresholds were obtained with the AST than with the other methods (100% for the AST, 63% with the PT, and 90% with the SRT) and the thresholds obtained with the AST were lower and closer to normal thresholds with a significant difference between the means of all three methods on test and retest (p less than .03). The AST gave better results than the SRT or PT methods for both right and left ears with all probabilities significant (p less than .01). Test-retest results were considered reliable for all three methods (reliability ranged from .82 to .91). (FL)

ABSTRACT 12094

EC 01 2094 ED N.A.
Publ. Date Jul 69 18p.

Gardner, William I.

Use of Punishment Procedures with the Severely Retarded: A Review.

EDRS not available

American Journal of Mental Deficiency; V74 N1 P85-103 Jul 1969

Descriptors: exceptional child research; mentally handicapped; reinforcement; custodial mentally handicapped; negative reinforcement; research reviews (publications); behavior change; behavior problems; electrical stimuli

Behavior treatment procedures involving aversive consequences have been used with increased frequency in work with the severely and profoundly retarded. Review of these punishment studies suggests a cautious conclusion that such procedures may produce desirable behavior change. In addition, there is some evidence that side effects of negative emotional states and disruption of social relationships are not necessary results of punishment techniques. (Author)

ABSTRACT 20014

EC 02 0014 ED 016 339
Publ. Date Feb 67 136p.

Crosson, James E.; DeJung, John E.

The Experimental Analysis of Vocational Behavior in Severely Retarded Males.

Oregon University, Eugene;
Fairview Hospital and Training Center, Salem, Oregon

EDRS mf,he

OEG-32-47-0230-6024

BR-6-8066

Descriptors: exceptional child research; mentally handicapped; vocational rehabilitation; reinforcement; trainable mentally handicapped; custodial mentally handicapped; residential schools; operant conditioning; positive reinforcement; learning characteristics; activity learning; job training

Working from a population of severely and profoundly retarded residential school patients, an attempt was made to devise an experimental program for training subjects on selected workshop tasks. Task analysis was employed to describe the respective vocational environments and to specify behavioral requirements. Training programs based upon the Skinnerian principles of shaping, operant discrimination, and chaining of responses were then developed. A preliminary study was conducted to determine the response acquisition characteristics of a random sample of 10 subjects. The data suggested that the acquisition of complex chains of over 100 discrete behaviors was reflected in positively accelerated exponential curves. A second study was conducted to test the effects of two reinforcement procedures on the maintenance of the acquired chains, employing two groups of 11 randomly selected subjects. The control group was exposed to relatively low but constant levels of social reinforcement. The experimental group received extrinsic (token) reinforcers delivered in accordance with prescribed schedules. The results suggested that scheduled extrinsic reinforcement maintained higher and more stable rates of vocational behavior than essentially non-contingent social reinforcement. (AA)

ABSTRACT 20086

EC 02 0086 ED N.A.
Publ. Date Sep 69 4p.
Congdon, David M.
The Vineland and Cain-Levine: A Correlational Study and Program Evaluation.
EDRS not available
American Journal of Mental Deficiency; V74 N2 P231-4 Sept 1969

Descriptors: exceptional child research; mentally handicapped; correlation; tests; trainable mentally handicapped; social maturity; interpersonal competence; Vineland Social Maturity Scale; Cain Levine Social Competency Scale

The progress of 23 trainable male subjects in a 1-year institutional training program was evaluated by a test-retest procedure with the Cain-Levine and Vineland. Initially, the instruments were found to be significantly correlated with each other and MA. Both scales indicated improvement in Social Competency but the Cain-Levine had the additional advantage of discriminating between areas of progress which corresponded to program emphasis. Initially less competent subjects achieved more over the 1 year than did the initially more competent subjects. (Author)

ABSTRACT 20496

EC 02 0496 ED N.A.
Publ. Date Mar 67 5p.
Minge, M. Ronald; Ball, Thomas S.
Teaching of Self-Help Skills to Profoundly Retarded Patients.
EDRS not available
American Journal of Mental Deficiency; V71 N5 P864-8 Mar 1967

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; self care skills; teaching methods; operant conditioning; reinforcement; behavior change

Six profoundly retarded girls aged 8 to 15 years (IQ range 10-24) were taught self help skills by psychiatric technicians following a step-by-step program in which each task was broken down into component parts for incremental acquisition at a pace consistent with patients' abilities. Training was given for 2 months in two individual 15-minute sessions per day, and the girls' correct responses to directions were reinforced with food (they earned breakfast and lunch) and praise. Comparison of situational test results showed significant improvement in taught skills (p equals .001). The subjects had significantly higher test scores than did a group of control subjects (p equals .01). The feasibility of teaching self help skills to profoundly retarded patients was demonstrated. (EE)

ABSTRACT 20765

EC 02 0765 ED N.A.
Publ. Date Oct 65 11p.
Argy, William P.
Montessori Versus Orthodox: A Study to Determine the Relative Improvement of the Preschool Child with Brain Damage Trained by One of the Two Methods.
EDRS not available
Rehabilitation Literature; V26 N10 P294-304 Oct 1965

Descriptors: exceptional child research; learning disabilities; teaching methods; preschool children; minimally brain injured; neurologically handicapped; preschool education; cerebral palsy; mongolism; motivation techniques; child development; methods research; individualized programs; Montessori Method

To compare the Montessori and Orthodox methods of teaching preschool children with brain damage associated with cerebral palsy, Mongolism, or other diagnoses, 71 brain damaged children were taught in two Montessori classes (40 children) and two Orthodox classes (31 children). The teaching program for the Orthodox classes was directed mainly toward the motivation of each child to participate according to his ability in 3, 4, and 5-year-old mental activities. In the Montessori classes each child worked individually at a different level. The children were matched into three groups according to chronological age (71 children), intelligence quotient (16 pairs of children), and mental age (18 pairs). The Gesell tests measured the developmental age of each child at the beginning and

end of the study. The mean improvement which was computed in months for ambulation, hand skills, speech, and school variants was greater in the Montessori classes for ambulation and school variants in the IQ-matched groups and ambulation in the MA-matched groups. For eight out of the 12 comparisons, the mean changes in developmental quotients favored the Montessori classes; however, the numbers involved in the study were too small to warrant any conclusion that either method is superior to the other. (EE)

ABSTRACT 20923

EC 02 0923 ED 027 654
Publ. Date 60 78p.
Hudson, Margaret
An Exploration of Classroom Procedures for Teaching Trainable Mentally Retarded Children. CEC Research Monograph, Series A, Number 2.
Council for Exceptional Children, Washington, D. C.
George Peabody College for Teachers, Nashville, Tennessee
Office of Education (DHEW), Washington, D. C.
EDRS mf, hc
OEC-SAE-6462

Descriptors: exceptional child research; mentally handicapped; curriculum; teaching methods; trainable mentally handicapped; reinforcement; class management; motivation; class size; teacher evaluation; homogeneous grouping; units of study (subject fields); individual instruction; language development; research needs

To investigate teaching techniques with trainable mentally retarded children, 29 day classes were visited twice; 100-minute observation periods were recorded on tape at each visit. Eight major areas of teaching methods were found: feeling tone, guidance and reinforcement, individual and group control, involvement of children in lesson, motivation, nonverbal teaching, structure of the teaching situation, and teacher centered behavior. Conclusions were that teachers spent a large proportion of time in attempting to get responses from children, acknowledging and encouraging responses, and explaining concepts and activities; non-verbal techniques were greatly used. Indications were that better teaching occurred in smaller groups which had fewer brain injured children and children who were more similar in IQ and closer in age. Of 15 major lesson categories, language development received the most emphasis while practical arts received the least. Teachers did individualize instruction but tended to work with one child only or the whole class. A teacher competency checklist and categories of lessons covering arithmetic, arts and crafts, dramatization, health and safety, language development, music, occupational education, practical arts, motor development, socialization, science, self help, social studies, sensory training, and mental development are included. (DF)

ABSTRACT 20965

EC 02 0965 ED 033 505
 Publ. Date May 69 48p.
 Gold, Marc William
The Acquisition of a Complex Assembly Task by Retarded Adolescents. Final Report.
 Illinois University, Urbana, Department of Special Education
 Office of Education (DHEW), Washington, D. C.; Bureau of Education for the Handicapped
 EDRS mf,he
 OEG-0-9-232021-0769(032)
 BR-8-8060

Descriptors: exceptional child research; mentally handicapped; discrimination learning; vocational rehabilitation; task performance; trainable mentally handicapped; sheltered workshops; learning characteristics; transfer of training; multisensory learning; educational methods; intermode differences

Sixty-four moderately and severely retarded individuals enrolled in four sheltered workshops learned to assemble a 15 piece and a 24 piece bicycle brake. Training procedures utilized information obtained from the basic psychological research on discrimination learning. One-half of the subjects worked with the parts of the training task brake as they came from the factory (Form Only). The others worked with parts that were color coded (Color Form). Coding consisted of painting that surface of each part that is facing the subject when it is placed in the proper position for assembly. All groups worked with the parts of the transfer task brake as they came from the factory (Form Only). Half of the subjects learned the tasks to a criterion of six correct out of eight consecutive trials, the other half performed 20 trials beyond criterion on the training task brake (overlearning). The Color Form groups learned the training task brake significantly faster than the Form Only groups. No significant overlearning effect was found. (Author)

ABSTRACT 21124

EC 02 1124 ED N.A.
 Publ. Date Nov 69 6p.
 Roos, Philip; Oliver, Margaret
Evaluation of Operant Conditioning with Institutionalized Retarded Children.
 EDRS not available
 American Journal of Mental Deficiency: V74 N3 P325-30 Nov 1969

Descriptors: exceptional child research; mentally handicapped; behavior change; operant conditioning; institutionalized (persons); custodial mentally handicapped; attendants; reinforcement; program evaluation

The effectiveness of operant conditioning procedures implemented by attendants was evaluated by comparing the progress of three groups of severely and profoundly retarded institutionalized young children. In addition to the experimental and control groups, a placebo group, which received classroom-type training, was included. The results indicated sig-

nificantly greater improvement in the group trained by operant conditioning. (Author)

ABSTRACT 21126

EC 02 1126 ED N.A.
 Publ. Date Nov 69 10p.
 Cornwell, Anne Christake; Birch, Herbert G.
Psychological and Social Development in Home-Reared Children with Down's Syndrome (Mongolism).
 EDRS not available
 American Journal of Mental Deficiency: V74 N3 P341-50 Nov 1969

Presented, in Part, at the Kennedy Foundation Scientific Symposium on Mental Retardation (Chicago, April 29, 1968).

Descriptors: exceptional child research; mongolism; social development; psychological characteristics; intelligence; language development; self care skills; age differences; family environment

Data on 44 home-reared children with Down's syndrome (mongolism) on the Stanford-Binet and on the Vineland Social Maturity Scale revealed a broad range of both intellectual and social competence. IQ scores decreased with age whereas SQ scores did not decline as systematically. The age-specific patterns indicated a slow accretion of certain social functions and concomitant impoverishment in advanced social skills. Severe limitations in language and conceptualization were noted throughout. The data supported the hypothesis that in Down's Syndrome there is both a developmental lag and an arrest of certain psychological and social capacities. (Author)

ABSTRACT 21227

EC 02 1227 ED 002 839
 Publ. Date 59 113p.
 Grace, Alonzo and Others
Measurement of the Educability of Severely Mentally Retarded Children.
 New York University, New York, School of Education
 Office of Education (DHEW), Washington, D. C.
 EDRS mf,he
 OEC-SAE-7783
 CRP-332

Descriptors: exceptional child research; mentally handicapped; tests; visual discrimination; intelligence level; predictive measurement; task performance; educable mentally handicapped; psychometrics; learning processes; ability identification; academic ability; retention; transfer of training; diagnostic tests

The purpose of the study was to investigate a testing method for obtaining objective, quantified, predictive measures of educability for mental retardates. The method was designed to measure abilities on which education depends—namely, the ability to learn under training, to transfer the training, and to retain the learning. Two samples were used: a pilot group of 115 and a final group of 114. Subjects in the final group had a mean IQ of 36 and an average age of 95 months. The final test battery was administered individually to each subject and included a test of imitative abilities

and memory, a size discrimination test, a shape discrimination test, and two tests of brightness discrimination. All of the subjects received the first four test administrations which yielded pretraining, posttraining, transfer, and retention scores respectively. Of the total sample, 102 took the fifth test series, based on retention. Of these, 36 were available for the last tests, repetitions of the first four tests. Intelligence exerted a greater significant effect on the scores of every test than the factors of age, time spent in school, sex, or medical diagnostic category. The relationship between learning performance and intelligence level was significantly greater on every test than that between intelligence level and initial performance. The ancillary findings suggest the applicability of the materials and training methods developed for the tests to curricular materials and classroom methods, and the suitability of testing used for other groups of children. (J1)

ABSTRACT 21244

EC 02 1244 ED 002 783
 Publ. Date 15 Dec 61 195p.
 Hudson, Margaret
Identification and Evaluation of Methods for Teaching Severely Mentally Retarded (Trainable) Children.
 George Peabody College for Teachers, Nashville, Tennessee
 Office of Education (DHEW), Washington, D. C.
 EDRS mf,he
 OEC-SAE-6462
 CRP-155

Descriptors: exceptional child research; mentally handicapped; teaching methods; classroom techniques; trainable mentally handicapped; classroom environment; teacher evaluation; effective teaching; teaching methods; Tennessee

The objectives of this study were to identify, describe, and categorize specific methods being utilized by teachers of trainable children in Tennessee; to identify teachers using the various techniques; to develop a preliminary rating scale of teacher competency; to determine whether a relationship exists between methods being used and other relevant variables; and to establish a hypotheses for controlled research on teaching methodology. Teaching methods were identified and categorized through type and observation recordings. Subsequent cluster analysis suggested seven problem areas in teaching trainable children: individual and group control, motivating the children to start and continue working, building a sense of personal worth in the children, structuring or guiding the learning, encouraging cooperative interpersonal interaction, providing for a mind-set or attention, and drawing from the children as opposed to pouring in. Further study of the patterning of teacher techniques was recommended, to clarify problem areas in teaching and to study whether the seven clusters defined in this study exist in other types of classes. Further investigation is needed to discover which teaching techniques would produce the best results in each of the problem areas. (GC)

ABSTRACT 21261

EC 02 1261 ED 002 757
 Publ. Date 30 Jun 58 67p.
 Cantor, Gordon N.; Giradream, Frederic L.

An Investigation of Discrimination Learning Ability in Mongoloid and Normal Children of Comparable Mental Age.

George Peabody College for Teachers, Nashville, Tennessee
 Office of Education (DHEW), Washington, D. C.
 EDRS mf. bc
 CRP-076

Descriptors: exceptional child research; mentally handicapped; perception; learning; auditory perception; psychomotor skills; special classes; institutional environment; mongolism; trainable mentally handicapped; learning processes

Discrimination learning processes in trainable mongoloid children were compared with those of normal preschool children. Four individual studies concerned with general behavior theory and mental deficiency examined whether such variables as transfer of training, acquired distinctiveness of cues, and acquired equivalence of cues known to facilitate or hinder learning would operate in a similar manner with normal children and mongoloids. The first experiment was concerned with the ability to make a rhythmic discrimination, and asked the subjects to distinguish between patterns produced by metronomes beating at two different speeds. In addition, half the subjects in each group were required to duplicate the patterns, so that the effects of the resulting kinesthetic cues could be studied. The second experiment involved the role of attention sets in the learning of a simple button pressing task. The remaining studies were concerned with similar learning problems, with particular attention being paid to the role of discrimination sets and verbal mediation process. In the four experiments, behavioral variability was not noticeable in the institutionalized mongoloids, nor did the stereotype of a docile, compliant, well behaved individual hold up among the special class mongoloids. Although some of the latter appeared to conform to this expected pattern, others evidenced behavior which could be described as hyperactive, hostile, and rebellious. The complexities introduced indicated that it would be worthwhile to continue this comparative approach. (GC)

ABSTRACT 21282

EC 02 1282 ED 002 749
 Publ. Date May 60 189p.
 Peck, John R.; Sexton, C. Lucille

A Comparative Investigation of the Learning and Social Adjustment of the Trainable Children in Public School Facilities, Segregated Community Centers, and State Residential Centers.

Texas University, Austin, College of Education
 Office of Education (DHEW), Washington, D. C.

EDRS mf. bc
 CRP-026

Descriptors: exceptional child research; mentally handicapped; adjustment (to environment); achievement; special classes; elementary grades; public schools; institutional schools; classroom environment; learning readiness; educational opportunities; remedial programs; teaching methods; trainable mentally handicapped

The study sought to determine the feasibility of including the trainable child (IQ 25 to 50, mental age below 8) in the public school program. Three groups of nine trainable children each were placed in a 2-year controlled-classroom program at each of three types of facilities: a typical city elementary school, a locally sponsored center for trainable children, and the state institution for retarded children. Using such data as etiological and family history, medical examination, psychometric and related tests, plus comparative scores of achievement on practical tasks taught, on social maturity scales, and on emotional growth of subjects, an attempt was made to evaluate which type of facility offers maximum growth and progress to the pupils. The information yielded by this research indicated that trainable children did make significant progress in an organized program which was under the direction of competent teachers, and that there were no significant differences between the level of average overall progress for the three experimental groups. The information obtained from the staff of the public school where one experimental class was housed indicated that the class for trainable children was not considered a disrupting factor nor a negative influence, and that it was accepted by the teachers and the so-called normal children in that building. (GC)

ABSTRACT 21770

EC 02 1770 ED 035 149
 Publ. Date Aug 69 61p.
 Guess, Doug and Others

A Language Development Program for Mentally Retarded Children. Volume I. Final Report.

Kansas University, Lawrence;
 Kansas Neurological Institute, Topeka
 Office of Education (DHEW), Washington, D. C.; Bureau of Education for the Handicapped
 EDRS mf. bc
 OEG-0-8-070815-0216
 BR-7-0815

Descriptors: exceptional child research; mentally handicapped; nonprofessional personnel; language development; teacher aids; institutionalized (persons); speech instruction; speech improvement; language instruction; intellectual development; reinforcement; language programs; oral expression; custodial mentally handicapped

The utilization of non-professional personnel as language teachers was investigated using forty residents and an equal number of controls who were matched on the variables of CA, IQ, and Lan-

guage Age (mean CA 13.28 and mean IQ 33). Two former psychiatric aids were trained as language developmentalists by classroom experiences, informal discussions and reading material pertinent to language acquisition. The language aids were provided with appropriate language development materials and supervised by a speech pathologist. A token reinforcement system was used in all classes. Results showed the children attending language classes made significantly greater raw score gains in the Illinois Test of Psycholinguistic Abilities than did the control group (CG) over the 18 month period. Significantly greater gains in IQ scores were made by the Language Training Group; their mean pre to post IQ score gains were 3.64 points compared to .22 points for the controls. Results suggested greater use of nonprofessional persons in the education of retarded children, while utilizing professionals as consultants. Lesson plans for this project can be found in EC 004 827. (Author/WW)

ABSTRACT 21926

EC 02 1926 ED N.A.
 Publ. Date Mar 70 8p.

Mitchell, Anna C.; Smeriglio, Vincent
Growth in Social Competence in Institutionalized Mentally Retarded Children.

EDRS not available
 American Journal of Mental Deficiency; V74 N5 P666-73 Mar 1970

Descriptors: exceptional child research; mentally handicapped; interpersonal competence; institutionalized (persons); social development

Two groups of 25 moderately and severely retarded children were evaluated for social-competence development during their first years of institutionalization. Children receiving the routine care characteristic of state institutions made no progress in Vineland social age; consequently, they showed a significant decline of ten points in average social quotient (SQ). Children receiving an additional high-saturation teaching program increased in social age and maintained their preadmission SQs. Both groups were significantly different from normal children in the comparative rate of development in various areas of social competence. Results suggest that young, moderately and severely retarded children require formal teaching in addition to routine attendant care. (Author)

ABSTRACT 22123

EC 02 2123 ED N.A.
 Publ. Date May 70 5p.

Hall, Stacy L.; Deacon, Kathryn F.
Effects Noted from the Use of the Frostig Training Program with Trainable Retardates.

EDRS not available
 Training School Bulletin; V67 N1 P20-4 May 1970

Descriptors: exceptional child research; mentally handicapped; perceptual motor learning; visual perception; trainable mentally handicapped; teaching methods;

Frostig Program for the Development of Visual Perception

The Frostig Program for the Development of Visual Perception was used with 30 TMR pupils for a seven month period. A control group of 30 TMR pupils followed conventional special class programming. Experimental and control subjects were individually administered the Frostig Developmental Test of Visual Perception, the Draw-A-Man Test (Goodenough), the Stanford-Binet Intelligence Scale, and the reading and arithmetic subtests of the Wide Range Achievement Test in order to determine the effectiveness of the Frostig training program with TMR pupils. The results indicate that the Frostig training program was of more value in specific areas than methods previously employed. (Author)

ABSTRACT 22170

EC 02 2170 ED N.A.
Publ. Date May 70 11p.
Kaplan, Arnold R.; Zsako, Steven
Biological Variables Associated with Mothers of Children Affected with G1-Trisomy Syndrome (Down's Syndrome).
EDRS not available
American Journal of Mental Deficiency; V74 N6 P745-55 May 1970

Descriptors: exceptional child research; mentally handicapped; mongolism; biological influences; genetics; metabolism

Mothers of children affected with Down's syndrome have shown significantly higher incidences of positive family histories than either the affected children's fathers or other mothers, for mental retardation, selected congenital anomalies, and multiple malignancies. Both mothers and fathers of affected children, but not the siblings, have shown higher incidence of simian crease than the general-population incidence. The mothers of affected children have shown higher incidences of low protein-bound iodine, positive cephalin-flocculation tests, thyroid autoantibodies, antinuclear antibodies, and high antistreptolysin-O titers. The variables are discussed in a context regarding increased predispositions for occurrence of G1-chromosome nondisjunction during ova-genic meiosis. (Author)

ABSTRACT 22240

EC 02 2240 ED N.A.
Publ. Date Jan 70 11p.
Fabia, Jacqueline; Drolette, Margaret
Malformations and Leukemia in Children with Down's Syndrome.
Harvard School of Public Health, Boston, Massachusetts;
International Children's Center, Paris, France
National Cancer Institute, Bethesda, Maryland;
Public Health Service (DHFW), Washington, D. C.
EDRS not available
Pediatrics; V45 N1 Part 1 P60-70 Jan 1970

Descriptors: exceptional child research; anomalies; mongolism; physical characteristics;

Leukemia

Cases of Down's Syndrome born alive from 1950-1966 in Massachusetts were studied for associated abnormalities. By organ system, the most frequent malformations were of the cardiovascular system followed by the digestive tract and the extremities. Results relating to maternal age, sex differences, and birth weight are reported. Of 2,421 infants, 23 cases of leukemia were found which were characterized by a high neonatal death rate, a shift over time in sex distribution and two cases of an excess in mosaics versus 3 expected. More of the mongoloids had three or more malformations than would be expected. (RJ)

ABSTRACT 22268

EC 02 2268 ED N.A.
Publ. Date Apr 70 7p.
Guess, Dong and Others
Utilization of Sub-Professional Personnel in Teaching Language Skills to Mentally Retarded Children: An Interim Report.
EDRS not available
Mental Retardation; V8 N2 P17-23 Apr 1970

Presented By the Senior Author at the Annual Meeting of the Missouri State Teachers Association, Kansas City (November 7, 1968), and the National Convention, Council for Exceptional Children, Denver (1969).

Descriptors: exceptional child research; mentally handicapped; teaching methods; subprofessionals; language instruction; psychiatric aides; institutionalized (persons)

Two psychiatric aides were trained as language developmentalists for small groups of severely and profoundly retarded children residing in a state institution. They were supervised by a speech pathologist who selected and prepared the materials used in the classrooms. Four experimental and control groups were compared over a nine month period: language training and special education, language training only, special education only, and neither language training nor special education. The Stanford-Binet and FIPA were administered to all groups prior to the program and nine months later. Results from these tests are presented with a discussion of the findings. Those who received both language training and special education made the greatest gains. (Author)

ABSTRACT 22371

EC 02 2371 ED N.A.
Publ. Date Aug 67 13p.
Zisk, Paulette Kender; Bialer, Irv
Speech and Language Problems in Mongolism: A Review of the Literature.
EDRS not available
Journal of Speech and Hearing Disorders; V32 N3 P228-41 Aug 1967

Descriptors: exceptional child research; mentally handicapped; mongolism; psycholinguistics; language development; articulation (speech); language rhythm;

voice disorders; oral communication; research reviews (publications)

Research on oral communication and mongolism is reviewed. Areas covered are as follow: symbolization, including psycholinguistic function and language development; articulation; rhythm; and phonation. A bibliography cites the 30 studies reviewed, which date from 1947 through 1965. (JD)

ABSTRACT 22877

EC 02 2877 ED 040 529
Publ. Date Jun 69 665p.
Sennel, Melvyn L. and Others
An Exploratory Study of the Relationship Between the Training, Experience, and Selected Personality Characteristics of Teachers and the Progress of Trainable Mentally Handicapped Children. Final Report.
Wayne County Intermediate School District, Detroit, Michigan
Office of Education (DHFW), Washington, D. C.; Bureau of Education for the Handicapped
EDRS mf,hc
OEG-5-10-022
BR-5-1051

Descriptors: exceptional child research; mentally handicapped; teacher characteristics; student development; teacher attitudes; trainable mentally handicapped; teachers; social development; individual characteristics; student teacher relationship; student evaluation

Data were obtained from surveying and testing 86 teachers and 979 trainable mentally handicapped (TMH) children. Results indicated that most teachers were married and had college degrees, but had only limited experience and no relationship outside the classroom with retarded children. Over a fourth were not certified. Most preferred to teach preschool or elementary, were disturbed by behavior problems and lack of pupil response, and viewed patience, calmness, and a sense of humor as greatest teacher assets. They emphasized the development of social skills abilities in their pupils and regarded the goals of social skills and emotional maturity as the best liked characteristics of their pupils. Most pupils in the 40 to 49 IQ range were judged capable of intelligible speech; mongoloids outnumbered brain injured children; most pupils had been in the county programs for 2 years or less. Over half the pupils had no retarded siblings; most came from blue collar families with the mother at home. Statistical analysis indicated that the vast majority of teacher variables were unrelated to pupil growth as measured by the Cain Levine Social Competency Scale. Six related studies are included. (JD)

ABSTRACT 22997

EC 02 2997 ED N.A.
Publ. Date Jul 70 10p.
Francis, Sarah H.
Behavior of Low-Grade Institutionalized Mongoloids: Changes with Age.
EDRS not available
American Journal of Mental Deficiency; V75 N1 P92-101 Jul 1970

Descriptors: exceptional child research; mongolism; behavior change; institutionalized (persons); age; behavior patterns; mentally handicapped

Observations using a time-sampling method showed that with increasing age, low-grade institutionalized mongoloids exhibit an increase in self-oriented behavior, in postures, in rocking, and in diffuse movements, and a decreasing interest in the external world (as measured by the focus of their visual attention, manipulation of objects, and the amount of social contact in which they are engaged). More changes in behavior occur between the ages of four and 13 years and after 30 years than at other ages. It is suggested that the behavioral changes are due to institutionalization rather than to aging. (Author)

ABSTRACT 23123

EC 02 3123 ED N.A.
Publ. Date 70 9p.
Brown, Lou and Others
Using Behavior Modification Principles to Teach Sight Vocabulary.
EDRS not available
Teaching Exceptional Children: V2 N3 P120-8 Spr 1970

Descriptors: exceptional child research; mentally handicapped; behavior change; sight vocabulary; trainable mentally handicapped; educational methods; group instruction; individual instruction; program evaluation; learning processes

To determine whether or not behavior modification techniques could be used to teach trainable mentally handicapped students sight words, an individual and a group study were conducted. The procedure involved the presentation of 57 words in groups of three with positive reinforcement for correctly labeled words until all groups in the series were correctly named. It was theorized that modeling and positive reinforcement would assist the learning process and that the student would be increasingly proficient at naming as the learning set was established. The assumptions were proven true; the group experiment was even more successful than the individual because of the reinforcement of the peer group. It is felt that expectations should be increased for the mentally handicapped as studies such as this indicate that they can accomplish more than simply survival tasks. (JM)

ABSTRACT 23128

EC 02 3128 ED N.A.
Publ. Date Aug 70 9p.
Johnson, Robert E. and Others
Procedures for Evaluating Physical Functioning in Trainable Mentally Retarded Children.
EDRS not available
Training School Bulletin: V67 N2 P78-86 Aug 1970

Descriptors: exceptional child research; mentally handicapped; physical examinations; testing programs; physical health; physical fitness; trainable mentally handicapped

It is noted that professional personnel engaged in the direction of physical education and recreation programs for the trainable mentally retarded have, in many instances, given little concern for the determination of the trainable child's existing physical potential. This paper is a description of a testing program which was developed to objectively study the physical functioning of a trainable population. Its purpose was to identify the individual trainable child's physical potential in order to prescribe a more meaningful program of physical education and therapeutic exercise to meet individual needs. (Author)

ABSTRACT 23418

EC 02 3418 ED N.A.
Publ. Date Aug 70 5p.
Treffry, Doug and Others
Operant Conditioning of Grooming Behavior of Severely Retarded Girls.
EDRS not available
Mental Retardation: V8 N4 P29-33 Aug 1970

Descriptors: exceptional child research; custodial mentally handicapped; operant conditioning; conditioned response; self care skills; educational methods; females; hygiene; behavior modification

A program was developed so that the regular nursing staff, during their normal, daily routine, could effectively teach severely mentally handicapped girls to wash and dry their hands and faces. The task was broken into twelve steps and each step was taught using positive reinforcement, fading, and time-out punishment. At the start of the program, none of the girls could perform the steps without some physical guidance. By the ninth week, seven of the eleven subjects could perform the tasks without any physical guidance. The value of publishing procedural reports is discussed. (Author)

ABSTRACT 23572

EC 02 3572 ED 042 305
Publ. Date 69 113p.
Rhodes, Leanne and Others
A Language Stimulation and Reading Program for Severely Retarded Mongoloid Children: A Descriptive Report.
California Mental Health Research Monograph No. 11.
California State Department of Mental Hygiene, Sacramento, Bureau of Research
EDRS mf,hc

Descriptors: exceptional child education; mentally handicapped; mongolism; language development; institutional environment; enrichment programs; language skills; language instruction; reading instruction; intellectual development; program descriptions

A longitudinal research study of the growth and development of 10 severely mentally handicapped mongoloid (Down's Syndrome) children reared together in a state hospital was conducted. They were tested regularly on the same scales, providing comprehensive histories of mental, psychomotor, and physical growth. When comparison with similar children reared at home emphasized the

declining developmental patterns of the institutionalized group, an environmental stimulation program (eventually including reading) was designed to overcome their relative retardation. Intensive language stimulation training was the focal point. Described are means used to make the environment more stimulating, better structure daily routine, and motivate staff. Initial language stimulation and articulation training is outlined, including modifications made as the program progressed. Aspects of reading training and instruction are summarized. Findings thus far show improvement in articulation, greater expressive use of language, more extensive receptive language, significant increase in intellectual ability, and ability to read and enjoy simple books. Asocial behaviors have almost disappeared and destructive, random, or stereotyped acts have decreased. (KW)

ABSTRACT 30020

EC 03 0020 ED 043 146
Publ. Date (70) 3p.
Bates, Karla K.; Armenti, Simma
Use of Multi-Sensory Reinforcement in Toilet Training Retardates.
Fairview State Hospital, Costa Mesa, California
EDRS mf,hc

Descriptors: exceptional child research; mentally handicapped; self care skills; behavior change; hygiene; positive reinforcement; training techniques; toilet training

A behavior modification program in toilet training, utilizing reinforcing properties of music, candy, cold drinks, and television was instigated with institutionalized (nontilet trained) males, ages 15-20 years, who were profoundly, severely and moderately mentally handicapped. Eleven experimental and 11 control subjects were involved. A Toileting Rating Scale was administered once each day during the 45 days of training, and Elimination Baseline data (indicating type and place of elimination) was recorded. Both groups underwent the training sessions, but the control group received only verbal rewards. Results showed that the multi-sensory reinforcement did cause an increase in the number of successful toilettings (self and other initiated) over the control group, with candy and music the most frequently selected reinforcers (82.8%). (KW)

ABSTRACT 30103

EC 03 0103 ED 043 177
Publ. Date Feb 70 110p.
Overs, Robert P. and Others
Paid Domestic Work for the Trainable Retarded Girl: A Pilot Project. Report No. 8.
Curative Workshop of Milwaukee, Wisconsin, Research Department
EDRS mf,hc
Curative Workshop of Milwaukee, 750 North 18th Street, Milwaukee, Wisconsin 53233 (\$2.00).

Descriptors: exceptional child research; trainable mentally handicapped; domesticity; pilot projects; vocational education; project training methods; job skills;

maids; job training; work experience programs; homemaking skills; females

A pilot project of the Curative Workshop of Milwaukee which provided domestic work training for four trainable mentally retarded girls is described. School psychologists' reports of the four adolescent trainees are included, and recommendations for future programming are noted. Evaluation data reflect the girls' performance, amount of supervision, job satisfaction, relationship to employer and supervisor, motivation, and interpersonal competence. Almost half of the report consists of a selected annotated bibliography and a list of references relating to the education, training and placement of the mentally retarded. The appendices present household job task descriptions, safety skills check lists, related inventories of visual and auditory skills, and the project evaluation form. (RD)

ABSTRACT 30117

EC 03 0117 ED N.A.
Publ. Date 62 122p.
O'Connor, N.; Hermelin, Beate
Speech and Thought in Severe Subnormality.
EDRS not available
Pergamon Press, 122 East 55th Street,
New York, New York 10022 (\$5.95).

Descriptors: exceptional child research; trainable mentally handicapped; thought processes; problem solving; learning; learning characteristics; multisensory learning; communication (thought transfer); perception; stimulus behavior; mentally handicapped

In support of the theory that the concept of intelligence has retarded the study of thinking, studies were both conducted and reviewed with trainable mentally handicapped children and adults, including mongoloids. The results evidenced deficits in acquisition rather than poor perception, retention, or transfer ability. Since an inability to focus on relevant stimulus features appeared to impair acquisition, naming, labelling, and the use of verbal and crossmodal coding were used to aid in singling out stimuli. In addition, presentation of material at relatively high intensity and frequency levels resulted in increased learning. (JD)

ABSTRACT 30163

EC 03 0163 ED 043 181
Publ. Date Jul 70 83p.
Krantz, Gordon
School-Rehabilitation Centers. Final Report.
Educational Research and Development Council Of the Twin Cities Metropolitan Areas, Inc., Minneapolis, Minnesota
Social and Rehabilitation Service (DHEW), Washington, D. C.
EDRS inf. hc

Descriptors: exceptional child research; mentally handicapped; cooperative programs; work study programs; rehabilitation programs; vocational training centers; program descriptions; adolescents; trainable mentally handicapped; vocational education; followup studies

The demonstration project involving the Cooperative School-Rehabilitation Centers (CSRC) for trainable mentally handicapped adolescents is described in areas of background, local planning, the planning grant, and beginning activities. Administrative concerns of staffing, program focus, responsibility structure, and negotiations for expansion are noted. The students' characteristics are presented, and brief descriptions of program areas including academics, arts and crafts, home economics, independent living, job training, music, physical education, and social perceptual training are provided. Followup data examines adjustments in employment and community integration. Also described are the role of the case manager, program innovations, program support activities, steps to employment, and the implications for the future of the Cooperative School-Rehabilitation Centers. (RD)

ABSTRACT 30215

EC 03 0215 ED N.A.
Publ. Date Oct 70 4p.
Blum, C. Milton
The Effectiveness of a Group Language Program with Trainable Mentally Retarded Children.
EDRS not available
Education and Training of the Mentally Retarded; V5 N3 P109-12 Oct 1970

Descriptors: exceptional child research; trainable mentally handicapped; language development; language ability; mentally handicapped

Twenty-four trainable mentally handicapped school age children were matched on the basis of CA and ITPA language age. The experimental group of 12 subjects received 33 instructional sessions of 45 minutes each for language improvement over an 11 week period. The language age gain scores of the two groups did not differ significantly although the experimental group showed a mean gain two months higher than that of the control group. The experimental subjects below CA 13-4 made far greater gains than did those above that age. (Author)

ABSTRACT 30216

EC 03 0216 ED N.A.
Publ. Date Oct 70 6p.
Thompson, Mary Martha; Fairbairn, George M.
The Use of Filmstrips in Teaching Personal Hygiene to the Moderately Retarded Adolescent.
EDRS not available
Education and Training of the Mentally Retarded; V5 N3 P113-8 Oct 1970

Descriptors: exceptional child research; trainable mentally handicapped; hygiene; filmstrips; self care skills; adolescents; audiovisual aids; mentally handicapped

Trainable mentally handicapped adolescents were taught personal hygiene under two conditions. One group was given instruction by demonstration; the second group received the same demonstration plus filmstrip viewing. Changes in hygienic self help were measured by the

teacher's and mother's ratings of behavior. The use of filmstrip increased learning in several areas of hygiene, and particularly appeared to improve generalization of newly learned habits from the classroom to the home. (Author)

ABSTRACT 30217

EC 03 0217 ED N.A.
Publ. Date Oct 70 6p.
Stephens, Beth and Others
Promoting Motor Development in Young Retarded Children.
EDRS not available
Education and Training of the Mentally Retarded; V5 N3 P119-24 Oct 1970

Descriptors: exceptional child research; mentally handicapped; perceptual motor learning; motor development; psychomotor skills; custodial mentally handicapped; trainable mentally handicapped

Individual perceptual motor programs were planned for 24 custodial and trainable mentally handicapped children (CA 7 to 12) after each child's level of motor development had been determined in four areas: gross motor, balance, arm hand coordination, and manual dexterity. Daily one-hour programs appropriate for each individual's level of motor development and level of receptivity were provided by a teacher and three aides. Initial results show gains for the experimental group to be in excess of those for the control group. (Author)

ABSTRACT 30228

EC 03 0228 ED N.A.
Publ. Date 68 105p.
Mercer, Charles V. and Others
Peer Influences on Reward Value: Performance of Retardates on a Task Requiring Temporally-Spaced Responding. IMRID Behavioral Science Monograph No. 13.
George Peabody College for Teachers, Nashville, Tennessee, Institute on Mental Retardation and Intellectual Development
National Institute of Child Health and Human Development, Bethesda, Maryland
EDRS not available
Peabody College Bookstore, George Peabody College for Teachers, Nashville, Tennessee 37203.

Descriptors: exceptional child research; mentally handicapped; reinforcement; social reinforcement; behavior change; young adults; institutionalized (persons)

Nine residents of an institution for the retarded (IQ range 37 to 55, CA 17-10 to 20-6) were studied to examine the effect of social referents on reactions to rewards. Subjects were reinforced with money for responding during a certain time interval (called prime) and not before or after prime. In a variation of the situation the task was performed in the presence of a stooge who performed the task for the same or a different reward. One conclusion reached was that reward or anticipation of reward can affect task performance; reinforcers were found to have a potential social dimension, but that not all individuals will make the

same use of social referents. Degree of sensitivity to social referents and the modification of sensitivity are discussed. (RJ)

ABSTRACT 30231

EC 03 0231 ED N.A.
Publ. Date 67 26p.
Haywood, H. Carl; Heal, Laird W.
Retention of Learned Visual Associations as a Function of I.Q. and Learning Levels in Institutionalized Retardates. IMRID Papers and Reports, Volume IV, No. 4.
George Peabody College for Teachers, Nashville, Tennessee. Institute on Mental Retardation and Intellectual Development
National Institute of Child Health and Human Development, Bethesda, Maryland
EDRS not available
Peabody College Bookstore, George Peabody College for Teachers, Nashville, Tennessee 37203.

Descriptors: exceptional child research; mentally handicapped; retention; intelligence differences; institutionalized (persons); intelligence level; learning theories; visual learning

To study the retention of learned visual associations, 87 institutionalized mentally handicapped persons (ages 11-39) were trained on a visual association task. Subjects were divided into four groups, based on IQ level: 40-49, 55-64, 70-79, and 80-100 IQ. The material to be learned consisted of ten geometric forms with a code symbol in the center of each. Each IQ level was divided into thirds according to efficiency of learning the codes. Retention tests were given after 1 hour, 24 hours, 1 week, 2 weeks, and 4 weeks. No differences among IQ levels in training or retention performance were noted. Retention was best and longest in those in any IQ group who had made more correct responses during acquisition. (KW)

ABSTRACT 30241

EC 03 0241 ED N.A.
Publ. Date 69 57p.
Stedman, Donald J.; Olley, J. Gregory
Bibliography of the World's Clinical and Research Literature on Down's Syndrome: Behavioral, Social and Educational Studies Through 1968. IMRID Papers and Reports, Volume VI, No. 2.
George Peabody College for Teachers, Nashville, Tennessee. Institute on Mental Retardation and Intellectual Development
National Institute of Child Health and Human Development, Bethesda, Maryland
EDRS not available
Peabody College Bookstore, George Peabody College for Teachers, Nashville, Tennessee 37203.

Descriptors: exceptional child research; mentally handicapped; mongolism; bibliographies

The bibliography lists about 450 entries on Down's syndrome (mongolism). The

literature cited dates from 1950 through 1968 and includes clinical and research studies in all languages. Behavioral, social, and educational dimensions are covered. (JD)

ABSTRACT 30243

EC 03 0243 ED N.A.
Publ. Date 70 38p.
Galloway, Charles; Galloway, Kay C.
Parent Groups with a Focus on Precise Behavior Management. IMRID Papers and Reports, Volume VII, No. 1.
George Peabody College for Teachers, Nashville, Tennessee. Institute on Mental Retardation and Intellectual Development
National Institute of Child Health and Human Development, Bethesda, Maryland
EDRS not available
Peabody College Bookstore, George Peabody College for Teachers, Nashville, Tennessee 37203.

Descriptors: exceptional child research; mentally handicapped; behavior change; parent role; parent workshops; behavior patterns

Parents of mentally retarded children participated in a child centered group. They were helped to determine behavior targets, to count and record behavior occurrence on a standardized behavior chart, and to generate plans for specific behavior management. Parent projects were designed to teach a child to button his clothes and to change the behavior patterns of a rocker, a screecher, and a nonspeaker. These projects were deemed successful. Factors affecting parent participation were also examined. (JD)

ABSTRACT 30250

EC 03 0250 ED N.A.
Publ. Date 70 6p.
Stubbs, Barbara
A Study of the Effectiveness of an Integrated, Personified Approach to Learning with Trainable Mental Retardates.
EDRS not available
Journal of Music Therapy: V7 N3 1977-82
Fall 1970

Descriptors: exceptional child research; trainable mentally handicapped; music; teaching techniques; discrimination learning; mentally handicapped

Studied were two approaches to the use of music to aid trainable mentally handicapped children in learning factual material and certain types of discrimination. Seven musical instruments were presented with photographs and recordings to a control group, and with a story and imaginative drawings in an integrated, personified approach to an experimental group. Each group contained 10 trainable mentally handicapped children. Pre- and posttests show that the integrated, personified approach was more successful (recognition was 38.5% better in the experimental group). (KW)

ABSTRACT 30251

EC 03 0251 ED N.A.
Publ. Date 70 5p.

Jorgenson, Helen; Parnell, Martha Kércheval
Modifying Social Behaviors of Mentally Retarded Children in Music Activities.

EDRS not available
Journal of Music Therapy: V7 N3 P83-7
Fall 1970

Descriptors: exceptional child research; mentally handicapped; socialization; music activities; interpersonal competence; social relations; behavior change

The study describes the modification of inappropriate social behaviors in four moderately mentally handicapped children aged 8-9 years (IQ 40-55). Specific music activities were chosen on the basis of observations to set the occasion for the modification of behavior. The behaviors to be eliminated were hitting, yelling, pushing, and non-participation. The behaviors to be developed were participation in an activity, initiating interaction with other children, and responding appropriately (including both initiated and imitated verbal and nonverbal responses). A point system was devised and used, with candy and record selection as positive reinforcement. Results indicated that all interfering behaviors decreased and participation increased when the point system was used. (KW)

ABSTRACT 30252

EC 03 0252 ED N.A.
Publ. Date 70 5p.
Talkington, Larry W.; Hall, Sylvia M.
A Musical Application of Premack's Hypothesis to Low Verbal Retardates. Boulder River School and Hospital, Montana
EDRS not available
Journal of Music Therapy: V7 N3 P95-9
Fall 1970

Descriptors: exceptional child research; trainable mentally handicapped; reinforcement; music activities; behavior change; verbal development; mentally handicapped

A study of the interaction between music preference and subsequent reinforcing effects upon performance was based on Premack's hypothesis (1965) that states essentially that a more preferred activity can reinforce a less preferred one. Matched groups of trainable mentally handicapped adolescents of low verbal ability were compared on echoic response production under three reinforcement conditions. Most and least preferred music activities and a non-music control condition were used as reinforcers when the previous day's performance was improved upon. Performance curves showed a steeper gradient for the most-preferred music group than for the least-preferred or control groups. (KW)

ABSTRACT 30274

EC 03 0274 ED N.A.
Publ. Date 70 5p.
Kugel, Robert B.
Combating Retardation in Infants with Down's Syndrome.
EDRS not available
Children: V17 N5 P188-92 Sep-Oct 1970

Descriptors: exceptional child research; mentally handicapped; mongolism; institutionalized (persons); institutional environment; child development; socialization; motor development; early childhood; environmental influences; residential care

To determine if institutionalized mentally retarded children can develop well socially and intellectually if provided care and stimulation in a homelike environment, seven children (ages 4-17 months) with Down's syndrome (mongolism) were studied for 18 months in an institutional program including a homelike atmosphere, enough staff for each child to have a substitute mother, and continuous stimulating and physically strengthening experiences. The development of adaptive processes and motor skills were emphasized. Special attention and new experiences away from the ward brought the children to a higher degree of sociability and adaptability than had been observed in similar institutionalized children. A physical therapist and occupational therapist instructed aides in motor skill development techniques, with the result that the children were functioning up to age in gross motor activities and just slightly below the norm for their chronological age in fine motor activities. In areas of language development and self help skills, too, progress made by six of the seven children was greater than would normally be expected of similar children. (KW)

ABSTRACT 30280

EC 03 0280 ED N.A.
Publ. Date Sep 70 15p.
Block, James D. and Others
Cardiac Classical Conditioning and Reversal in the Mongoloid, Encephalopathic, and Normal Child.
Jewish Hospital of Brooklyn, New York.
Department of Pediatric Psychiatry
National Institute of Child Health and Human Development, Bethesda, Maryland
EDRS not available
Child Development; V41 N3 P771-85 Sep 1970

Descriptors: exceptional child research; mentally handicapped; conditioned response; heart rate; discrimination learning; stimulus behavior; physical development; age differences; physiology; mongolism

A study was conducted to explore conditioned learning and reversal of the heart-rate response in encephalopathic, mongoloid, and normal children. The conditioned stimuli were 400- and 1,000-cycle tones, and the unconditioned stimulus was a loud auto horn sound. An EKG was recorded together with an indication of tone and horn occurrences during periods of discrimination, reinforced extinction, and reversal. Conditioned cardiac responses of normal children show an orderly progression with age, with the youngest (2-4 years) displaying no cardiac discrimination. During initial conditioning, only the oldest normals (6-11 years) showed discrimination, while dur-

ing subsequent reversal, they and the intermediate (4-6 years) normals did. The mongoloids, like the youngest normals, evidenced none. Encephalopathic children showed a discrimination during reversal which was inappropriate. The fact that in general the retardates reacted like younger normal children suggested that a common process may affect both heart and brain maturation. Results are also discussed in terms of various aspects of retardates' cardiac function, such as the degree of relation between prestimulus and change values. (KW)

ABSTRACT 30547

EC 03 0547 ED N.A.
Publ. Date Oct 70 10p.
Hersh, Alexander
Changes in Family Functioning Following Placement of a Retarded Child.

EDRS not available
Social Work; V15 N4 P93-102 Oct 1970
Paper Presented at the Annual Meeting of the American Association on Mental Deficiency (92nd, Boston, Massachusetts, May 1968).

Descriptors: exceptional child research; mentally handicapped; institutionalized (persons); family relationship; emotional adjustment; parent role; family attitudes; parent school relationship

The study investigated changes in family functioning and interrelationships for three months after the placement of a mentally retarded child in a residential school. The case study method was utilized in the study of 15 families. Data were obtained by tape-recorded parent interviews, case records of the children, and interviews with the children's housemothers and the director of education (or teachers). Findings showed that most families evidenced a four-step emotional response following placement: loss, relief, guilt and ambivalence, then fulfillment and well-being. Regarding the response of parents in relation to the school, it was found that the loss of an active parental role created much anxiety for them. The families were uncertain about the placement and their role in relation to the school and to their child, and further study of the strategies and services of schools in relation to parents is recommended so that the schools can serve the families in addition to the child. Implications for social work practice are noted. (KW)

ABSTRACT 30638

EC 03 0638 ED N.A.
Publ. Date 63 64p.
Cain, Leo F.; Levine, Samuel
Effects of Community and Institutional School Programs on Trainable Mentally Retarded Children. CEC Research Monograph.
San Francisco State College, California
Office of Education (DHEW), Washington, D.C.; Cooperative Research Program
EDRS not available
Council for Exceptional Children, 1411 South Jefferson Davis Highway, Suite 900, Arlington, Virginia 22202 (\$2.00).

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; self care skills; self actualization; social influences; social adjustment; parent child relationship; parent attitudes; institutionalized (persons); community programs.

A sample consisting of 182 subjects (parents, children, teachers), was divided into four groups and tested over a 2 year period to compare the changes in the social competency development of school and nonschool trainable retarded children residing in community and institutional settings as well as the changes in adaptability of the parents of the community children. It was concluded that the public and institutional school programs did not foster the social competency development of trainable retarded children beyond that of children not attending such programs. Approximately 44% of the community classroom time and 35% of institutional time was categorized as instructional (25% of each being classified as instructional in social competence). Both the institutional school and institutional nonschool groups showed significant decreases in their social competency scores over the 2 year study period, whereas the community school and nonschool groups showed significant increases. Concerning the changes in adaptability of the parents of the community children, the finding was that the mother's adaptability was related to the child's gains in social competence. Mothers scored higher on adaptability than fathers, which suggested that parental roles and expectations differ for mothers and fathers of trainable children. (CD)

ABSTRACT 30910

EC 03 0910 ED N.A.
Publ. Date Dec 70 5p.
Bartel, Nettie R.
The Development of Morphology in Retarded Children.
EDRS not available
Education and Training of the Mentally Retarded; V5 N4 P164-8 Dec 1970

Descriptors: exceptional child research; mentally handicapped; morphology (languages); language development; language instruction

Eighteen moderately and mildly retarded children were administered pre and posttests of morphological usage consisting of 54 lexical items and 27 nonsense items. Subjects received 6 weeks' training (fifteen 15-minute training lessons) on one-half of the lexical items. Results indicated that moderately and mildly retarded children made equal gains, suggesting that both groups are able to generalize from language training to application in different and novel linguistic forms. No evidence was found for the contention that more severely retarded children acquire language through strategies that differ qualitatively from strategies employed by their brighter peers. (Author)

ABSTRACT 30998

EC 03 0998 ED N.A.
 Publ. Date 70 110p.
 Cowie, Valerie A.

A Study of the Early Development of Mongols.

EDRS not available
 Pergamon Press, Inc., Maxwell House,
 Fairview Park, Elmsford, New York
 10523 (\$8.00).

Descriptors: exceptional child research;
 mentally handicapped; mongolism; child
 development; infancy; motor reactions

Designed to examine the pattern of de-
 velopment (specifically in reference to
 early infantile reflexes) among infants
 exhibiting mongolism, a study was made
 involving 79 mongols examined during
 the neonatal period and at 6 weeks, 6
 months, and 10 months of age. Results
 of the examinations showed specific
 characteristics of the mongolism condi-
 tion relating to muscle tone, traction re-
 sponse, ventral suspension, Moro reflex,
 palmar grasp and plantar grasp, automat-
 ic stepping, patellar reflex, placing reac-
 tion, strabismus, and chromosomal find-
 ings. Photographs and tables are provid-
 ed to illustrate the data. (RD)

ABSTRACT 31222

EC 03 1222 ED N.A.
 Publ. Date 70 11p.

A Comparison of the Musical Sensitivity of Mongoloid and Normal Children.

EDRS not available
 Journal of Music Therapy: V7 N4 P113-
 23 Win 1970

Descriptors: exceptional child research;
 mentally handicapped; mongolism; mu-
 sic; average students

To investigate and measure the basic
 musical sensitivity of mentally handi-
 capped children and to compare them
 with normal children, four groups of ten
 children were tested. It was found that
 reactions of mentally handicapped child-
 ren to music are similar to those of nor-
 mal younger children. No evidence that
 mentally handicapped children have
 heightened musical sensitivity was sub-
 stantiated. (CD)

ABSTRACT 31243

EC 03 1243 ED 046 159
 Publ. Date Dec 69 15p.

An Investigation of Factors Influencing Learning in the Mentally Retarded, and Their Use in the Design of Instructional Materials. Interim Report.

Texas University, Austin;
 Texas Research Institute, Houston
 Office of Education (DHEW), Washing-
 ton, D. C., Bureau of Education for the
 Handicapped
 EDRS mf, hc
 OEG-0-8-070185-1750
 BR-7-0185

Descriptors: exceptional child research;
 mentally handicapped; learning charac-
 teristics; motivation techniques; institu-
 tionalized (persons); reinforcement

To compare social versus mechanical

presentation of stimulus material under
 prompted or trial-and-error (confirmation)
 conditions of learning, institutional-
 ized educable and trainable mentally
 handicapped children were tested on a
 discrimination learning task. Results
 were felt to indicate that social reinforce-
 ment may not be as motivating for train-
 able as for educable subjects; and that
 prompted learning is not as effective as
 trial-and-error learning for discrimination
 tasks and trainable subjects. (CD)

ABSTRACT 31368

EC 03 1368 ED N.A.
 Publ. Date Feb 71 7p.
 Guess, Doug and Others

The Role of Nonprofessional Persons in Teaching Language Skills to Mentally Retarded Children.

EDRS not available
 Exceptional Children: V37 N6 P447-53
 Feb 1971

Descriptors: exceptional child research;
 trainable mentally handicapped; nonpro-
 fessional personnel; language instruction;
 institutionalized (persons); small group
 instruction

The study reviews a 2 year research pro-
 ject in which two former psychiatric
 aides were trained to serve as language
 developmentalists for small groups of
 institutionalized severely retarded child-
 ren. Forty children participating in the
 program were compared with a matched
 control group on variables of IQ, lan-
 guage age, and social quotient. Children
 attending language classes met daily for
 approximately one hour. They were
 taught from the Peabody Language De-
 velopment Kits and a series of lessons
 developed during the project. Results
 showed significantly greater language
 scores made by the language training
 group. IQ score increases were equivocal,
 but again favored those children at-
 tending language classes. (Author)

ABSTRACT 31638

EC 03 1638 ED N.A.
 Publ. Date Feb 71 8p.
 Brown, Lou and Others

Increasing Individual and Assembly Line Production Rates of Retarded Students.

EDRS not available
 Training School Bulletin: V67 N4 P206-
 13 Feb 1971

Descriptors: exceptional child research;
 trainable mentally handicapped; productiv-
 ity; work environment; reinforcers;
 mentally handicapped

Work arrangements (individual and as-
 sembly line) and reinforcement (social
 only and social plus tangible) were ma-
 nipulated to increase the production rates
 of six trainable level students in an enve-
 lope stuffing task. Individual work set-
 tings consistently resulted in higher pro-
 duction rates than assembly line settings
 regardless of the reinforcement contin-
 gencies in effect. Production rates also
 consistently improved when tangible
 reinforcement, in the form of compo-
 nents of a banana split, was successively
 made contingent on attaining a student or

group specified goal. These environmen-
 tal manipulations were successful in part
 because the teachers specified their in-
 structional objectives in a way that re-
 quired direct measurement of their stu-
 dents' behavior. (Author)

ABSTRACT 31739

EC 03 1739 ED 047 470
 Publ. Date Nov 70 29p.

Investigation of the Effects of an Aquatics Program on the Psycho-Motor Function of Trainable Mentally Retarded Children.

Educational and Cultural Center Serving
 Onondaga And Oswego Counties, Syra-
 cuse, New York

Bureau of Elementary and Secondary
 Education (DHEW/OE), Washington, D.
 C.

EDRS mf, hc
 Paper Presented at the Northeastern
 Educational Research Association An-
 nual Convention (New York; New York,
 November 15-17, 1970).

Descriptors: exceptional child research;
 trainable mentally handicapped; swim-
 ming; psychomotor skills; interpersonal
 relationship; mentally handicapped;
 physical activities; body image

To determine the effects of an aquatics
 program on the psycho-motor functions
 and body image of trainable mentally
 handicapped children, 60 children under
 16 years of age were selected, and 39
 children instructed three days per week
 over a period of one year. Results did
 not support the hypothesis that subjects
 in instructional aquatic classes would
 show significant psychomotor improve-
 ment as compared to those not partici-
 pating. Researchers indicated that the
 appropriateness of the testing tools were
 questionable. Responses from teachers
 and parents led the researchers to feel
 that while there were no significant gains
 in perceptual motor abilities, the ego
 involvement provided by the program
 appeared to result in improved personal
 relationships among peers, teachers, and
 parents. (CD)

ABSTRACT 31760

EC 03 1760 ED N.A.
 Publ. Date 59 112p.

Effects of a Severely Mentally Retarded Child on Family Integration.

EDRS not available
 Kraus Reprint Company, 16 East 46th
 Street, New York, New York 10017
 (\$4.00).

Descriptors: exceptional child research;
 trainable mentally handicapped; family
 (sociological unit); siblings; family char-
 acteristics; marital instability; group uni-
 ty; socioeconomic status; age differ-
 ences; sex differences; social relations;
 religious differences; institutionalized
 (persons)

To investigate how various conditions
 concerning a trainable mentally retarded
 child (IQ less than 50) and his family
 influence the effects of the retarded child
 on family integration, parents of 240

such children were interviewed. Instruments and questions pertaining to independent variables were age and sex of retarded child, social status, a modified Vineland Scale, retarded child at home or in an institution, religious preference and frequency of attendance, frequency of seeing wife's mother and husband's mother, neighborliness scale, frequency of seeing friends, and parents' activity in formal organizations. Each of these variables was related to the dependent variables of marital integration and sibling role tension. It was concluded that the results presented important considerations in deciding upon institutionalization for a child, in that age, sex, and dependence of the retarded child in combination with the presence of normal siblings and the social status and religion of the family were shown to determine the impact of the presence of the retarded child on the family. (Author/KW)

ABSTRACT 31873

EC 03 1873 ED N.A.
Publ. Date Dec 70 14p.
Stone, Nellie D.
Institutional or Home Care: A Study of Decisions by Parents with Young Mongoloid Retardates.
EDRS not available
Research Bulletin: N22 P97-110 Dec 1970

Descriptors: exceptional child research; mentally handicapped; mongolism; parent attitudes; family (sociological unit); placement; institutionalized (persons)

The study sought to determine factors indicative of appropriate or inappropriate placement decisions, in regard to family adjustment to the impact and presence of a congenitally defective, mongoloid child under the age of nine years. Of the 103 intact families studied retrospectively, 50 were applicants awaiting admission of their mongoloid children to New Jersey institutions for the retarded. Each father and mother was successively interviewed, according to a structured schedule, to report sociodemographic data, reactions to the birth of the mongoloid child, experiences leading to the application decision, and current willingness for placement. The parents indicated their knowledge about their child's handicap, attitudes toward his care, ranking of family goals, compatibility with other family members, and current adaptiveness to their situation. On the basis of social casework judgment, the interviewers rated the family's adequacy of functioning. Significant differences were found in the families' sociodemographic characteristics, and in cognitive, experiential, attitudinal, and interpersonal factors, which were associated with level of family functioning and appropriateness of placement intention. The adequacy of parental knowledge about mongolism and mental retardation was indicated as being inversely correlated with placement willingness, and positively associated with attitudes indicative of crisis resolution, as well as with professional judgments of satisfactory family functioning. It was recommended that adequate information

and counseling services be made readily available to parents at the time of birth of the congenitally handicapped child, to enable them to make sound care decisions, and to foster favorable family adaptation. Longitudinal, rather than cross-sectional study, beginning at the time of birth, was suggested for further investigation of the patterns and process of family response to this crisis. (Author)

ABSTRACT 31876

EC 03 1876 ED N.A.
Publ. Date Mar 71 6p.
Al-Issa, Ihsan
Factors in the Verbal and Motor Learning of Imbeciles.
EDRS not available
Journal of Psychology: V77 N2 P151-6 Mar 1971

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; verbal learning; learning processes; psychomotor skills; age differences

To investigate the effects of age and practice on motor and verbal performance of the trainable mentally handicapped, four groups took part in a verbal experiment and six groups participated in a motor experiment. The groups varied in terms of age and experimental conditions. Indications pointed to the need for observation as well as performance of a motor task for all age groups. The verbal experiment was felt to indicate that older subjects and those with more learning experience were able to generalize more and give more abstract definitions. The researchers felt that the study showed that trainables from different age groups were able to learn simple motor and verbal tasks and to benefit from the experience in learning other related material. (C1D)

ABSTRACT 31879

EC 03 1879 ED N.A.
Publ. Date Mar 71 7p.
Husted, J. and Others
The Psychological Evaluation of Profoundly Retarded Children with the Use of Concrete Reinforcers.
EDRS not available
Journal of Psychology: V77 N2 P173-9 Mar 1971

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; intelligence tests; infant behavior; reinforcers; Cattell Infant Intelligence Scale

To investigate the hypothesis that the lack of predictive validity in infant intelligence tests is due in part to the tasks not being sufficient to sustain the child's interest or motivation in the test, 40 custodial mentally handicapped were tested with one of two types of the Cattell Infant Intelligence Scale. Twenty two of the children received candy as a concrete reinforcer in place of the regular test material. It was noted that the children who received the modified Cattell scored significantly higher in both mental age and IQ. It was the opinion of the investigators that the influence of the candy

was to increase motivation, consistency of response, and to give the tester a clearer picture of the cognitive structure of the child being evaluated. (C1D)

ABSTRACT 32022

EC 03 2022 ED N.A.
Publ. Date Mar 71 5p.
Funk, Dean C.
Effects of Physical Education on Fitness and Motor Development of Trainable Mentally Retarded Children.
EDRS not available
Research Quarterly: V42 N1 P30-4 Mar 1971

Descriptors: exceptional child research; trainable mentally handicapped; physical fitness; physical education; mentally handicapped; motor development

To determine the effect of a physical education program on the physical fitness and motor development of trainable mentally retarded (TMR) children, an experimental group of 18 TMR students, ages 8-18 years, were given 30 minutes of planned physical education daily for 58 consecutive school days. The 18 TMR students who served as controls had free play or teacher-directed recreational activity during this time. On two fitness test items, the shuttle run and sit-ups, the experimental group showed significant improvement. On other fitness items the experimental group did not improve significantly. (Author/KW)

ABSTRACT 32086

EC 03 2086 ED N.A.
Publ. Date Apr 71 11p.
Brown, Lou; Perlmuter, Lucille
Educational Materials: Teaching Functional Reading to Trainable Level Retarded Students.
EDRS not available
Education and Training of the Mentally Retarded: V6 N2 P74-84 Apr 1971

Descriptors: exceptional child research; trainable mentally handicapped; basic reading; reading ability; mentally handicapped

An experiment was designed to teach functional reading, instructionally defined as discrete and observable motor responses to printed stimuli, to trainable mentally retarded (TMR) students. Stimuli consisted of 17 printed words, arranged into 9 different sentences. Subjects were seven TMR students, ages 14-19 years, with IQ scores between 39 and 51. Students were taught using reinforcement to label the stimulus words in sentence order and then respond differentially to the sentences (perform the task specified in each particular sentence), as well as to respond differentially to the same words labeled by the teacher. From the data presented it is concluded that the subjects, after 60 hours of instruction, met the criteria for functional reading. (KW)

ABSTRACT 32215

EC 03 2215 ED 050 501
Publ. Date 71 25p.
Santin, Sylvia E.

Report of an Experiment in the Teaching of Reading to Adolescent Trainable Retarded.

Cineltph University, Ontario, Canada.
Center for Educational Disabilities
Ontario Association for the Mentally Retarded, Toronto, Canada
EDRS mf,he

Descriptors: exceptional child research; trainable mentally handicapped; reading readiness; phonics; mentally handicapped; reading; adolescents; programed instruction; protective vocabulary

An experiment to teach the adolescent trainable mentally handicapped child to read was conducted in four schools for the trainable mentally handicapped. Six to eight children were selected from each school to make up a reading class. Classes, held for approximately one year, used a programed reading kit that emphasized phonics as a foundation for reading. Reading level was tested before and after the experiment. Post test scores were felt to show considerable increases in nearly all cases. It was noted that the reading classes had improved the students' ability to recognize Protective Vocabulary words which were taught in the regular classroom. Improvement in the childrens' self confidence was also noted. It was felt that assessment of children should be primarily in terms of learning attitudes rather than IQ, that children in schools for the retarded should be exposed to reading readiness programs, that the reading program should aim to introduce fundamental skills involving phonics, and that the teaching approach should be of a concrete nature and carefully programed so that the child can move with confidence from step to step. (C'D)

ABSTRACT 32248

EC 03 2248 ED N.A.
Publ. Date Feb 71 6p.
Barrett, Beatrice H.
Behavioral Differences among an Institution's Back Ward Residents.
EDRS not available
Mental Retardation: V9 N1 P4-9 Feb 1971

Descriptors: exceptional child research; mentally handicapped; institutionalized (persons); behavior patterns; custodial mentally handicapped; trainable mentally handicapped; behavior rating scales; behavior change; institutional personnel

Trainable and custodial mentally handicapped institutionalized children were studied over several months under laboratory conditions to determine each child's basic behavioral skills and deficiencies so that suitable training programs could be developed. Rates of working for various consequences were recorded, and disrupting behaviors were noted. The children were drawn from two purportedly similar custodial buildings of a large public institution. Unexpected behavioral differences between the two groups in which children from one building were more disruptive and slower to respond proved to be associated with differences in characteristics

and practices of building employees. The finding was felt to raise important questions of behavioral requirements, staff to child ratio, inservice training and habilitative procedures for habilitators, researchers, and administrators seeking to improve residential services for retarded people. (Author/C'D)

ABSTRACT 32310

EC 03 2310 ED N.A.
Publ. Date Mar 71 7p.
Graham, James T.; Graham, Louella W.
Language Behavior of the Mentally Retarded: Syntactic Characteristics.
EDRS not available
American Journal of Mental Deficiency: V75 N5 P623-9 Mar 1971

Descriptors: exceptional child research; mentally handicapped; morphology (languages); language research; intelligence level; language development; intelligence quotient

Language samples from nine mentally retarded subjects with CAs ranging from 10 to 18 years and MAs ranging from 3 years, 6 months, to 10 years were analyzed syntactically. The results were felt to indicate that certain indices of linguistic sophistication and subjects' MAs were correlated. It was tentatively hypothesized that nonmongoloid retardates develop rules of their language at a different rate but in much the same way as intellectually-average children. (Author)

ABSTRACT 32372

EC 03 2372 ED 050 529
Publ. Date Jan 69 179p.
Fredericks, H. D. Bud
A Comparison of the Doman-Deleacato Method and Behavior Modification Method Upon the Coordination of Mongoloids.
Oregon State System of Higher Education, Monmouth. Teaching Research Division
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS mf,he

Descriptors: exceptional child research; mongolism; perceptual motor coordination; social reinforcement; psychomotor skills; behavior change; mentally handicapped; Doman Deleacato Method

In order to examine the effects of two treatment methods on the coordination of mongoloid children, 72 mongoloid children (ages 7 to 12) were randomly assigned to groups receiving either the Doman Deleacato method or behavior modification procedures utilizing social reinforcement. The children were pre and posttested by the Doman Deleacato Profile and a modified version of the Lincoln-Oseretsky Motor Development Scale. At the end of the 9-week treatment, results showed no significant differences between the two treatment methods although the children receiving the behavior modification treatment demonstrated at the conclusion of the study more improved coordination than did the children receiving the Doman Deleacato method. Implications and recommendations for further study are outlined. (RD)

ABSTRACT 32484

EC 03 2484 ED N.A.
Publ. Date 70 127p.
Berg, J. M. and Others
The deLange Syndrome.
EDRS not available
Pergamon Press, Inc., Maxwell House, Fairview Park, Elmsford, New York 10523 (\$8.40).

Descriptors: exceptional child research; mentally handicapped; medical case histories; clinical diagnosis; statistical data; medical evaluation; deLange syndrome

Discussed are clinical data concerning the deLange syndrome, in which mental and physical retardation occur in conjunction with various other characteristic features, involving particularly the face and limbs. Reported are observations (personal and family histories, clinical details, dermatoglyphs, and other data) on 18 patients considered to be examples of the deLange syndrome. These findings are analyzed together with the findings of 236 previously reported cases. Focused upon in particular are manifestations of the syndrome and etiological considerations. (KW)

ABSTRACT 32510

EC 03 2510 ED 051 604
Publ. Date Aug 70 15p.
Griffith, Marlin S.
A Sampling of Progress Achieved by Trainable Mentally Retarded Persons Enrolled in Community Centered Programs in the State of Colorado.
Colorado University, Boulder
Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
EDRS mf,he

Descriptors: exceptional child research; trainable mentally handicapped; community programs; skill development; program effectiveness; mentally handicapped; day schools; Colorado

The study evaluated progress made by trainable mentally retarded (TMR) persons in community centered programs, which allow them to remain with their families and in the community rather than being institutionalized. Evaluated were two experimental groups numbering 12 and 22 persons (mean ages 10 years 7 months and 10 years 2 months) who had been enrolled in two different community centered programs for 1-6 years (mean of 3 years), and a control group of 20 subjects (mean age 9 years 9 months) waiting to be enrolled. The TMR Performance Profile, a descriptive behavioral measure, was used to assess subjects' abilities in five major areas of daily activities: social behavior, self-care, communication, basic knowledge, and body usage. Both experimental groups scored significantly higher than the control group in all areas except self-care, in which only one experimental group scored significantly higher. It is concluded that systematic training programs as exemplified by the community centered concept significantly improve the skills and functioning of the TMR and that the

development of such community centered programs is justified. (KW)

ABSTRACT 32599

EC 03 2599 ED N.A.
Publ. Date 71 10p.
Miller, Harold R. and Others
Behavior Modification in a Profoundly Retarded Child: A Case Report.
EDRS not available
Behavior Therapy: V2 N3 P375-84 Jul 1971

Descriptors: exceptional child research; custodial mentally handicapped; behavior change; training techniques; case studies; self care skills; mentally handicapped

Three behavior modification programs used with R, a profoundly retarded 7-year-old boy, are described. The programs developed a self-feeding operant, taught R to respond appropriately to a verbal command and greatly increased his ability to stand without support. Side effects included an apparent increase in R's responsiveness to his environment, and independent mobility by crawling or using a walker. Observational follow-up information indicates that R's behavior gains have been maintained in his home. Questions raised by the training techniques used and suggestions for further research are considered. (Author)

ABSTRACT 32845

EC 03 2845 ED N.A.
Publ. Date Aug 71 6p.
Swartz, Jon D. and Others
The Holtzman Inkblot Technique as a Measure of Perceptual Development in Mental Retardation.
EDRS not available
Journal of Personality Assessment: V35 N4 P320-6 Aug 1971

Descriptors: exceptional child research; mentally handicapped; perceptual development; measurement techniques; intelligence differences; Holtzman Inkblot Technique

To investigate relationships between mental age and scores from the Holtzman Inkblot Technique (HIT), 96 mentally retarded and normal children and adults comprising four criterion IQ groups ranging in IQ from 34 to 106 were tested. Each group of 12 females and 12 males was matched for sex and chronological age. Ten standard HIT variables were selected for analysis: form appropriateness, form definiteness, integration, movement, human, color, shading, location, pathognomic verbalization, and animal. A table presented means, standard deviations, and significance levels for each variable for each of the four IQ groups. Form appropriateness, movement, integration, and human showed steadily increasing mean scores across the four IQ groups; pathognomic verbalization and animal showed steadily decreasing mean scores across the four groups; and form definiteness, color, shading, and location showed a lack of significant developmental trends across the four groups. The results were interpreted as providing strong support for

several HIT scores as indexes of perceptual development. (Author/CB)

ABSTRACT 32874

EC 03 2874 ED N.A.
Publ. Date May 71 9p.
English, R. William; Palla, David A.
Attitudes Towards a Photograph of a Mildly and Severely Mentally Retarded Child.
EDRS not available
Training School Bulletin: V68 N1 P55-63 May 1971

Descriptors: exceptional child research; mentally handicapped; public opinion; attitudes; physical characteristics

The attitudes of the general public towards the phenotype of a severely and a mildly mentally retarded child were examined by means of the Semantic Differential Scales developed by Osgood, Suci, and Tannenbaum (1957). Subjects, consisting of 80 female clerical office workers, rated two stimulus photographs (of a mildly and a severely retarded boy) on 20 pairs of bipolar adjectives. Forty subjects viewed each photograph. Those who viewed the photograph of the severely retarded boy evidenced far more negative attitudes than did those who viewed the photograph of the mildly retarded boy, indicating that important judgments about the mentally retarded are often made on the basis of phenotype alone (the apparent physical degree of retardation). Based on these results, recommendations are made for professional personnel who work with retarded children. (Author/KW)

ABSTRACT 32955

EC 03 2955 ED N.A.
Publ. Date Jun 71 3p.
Groves, Ivor D.; Carroccio, Dennis F.
A Self-Feeding Program for the Severely and Profoundly Retarded.
EDRS not available
Mental Retardation: V9 N3 P10-2 Jun 1971

Descriptors: mentally handicapped; operant conditioning; eating habits; self care skills; exceptional child research; trainable mentally handicapped; custodial mentally handicapped; behavior change

A program for teaching trainable and custodial mentally handicapped persons to eat with a spoon is described. Operant conditioning techniques were used to increase the appropriate use of spoons during meal periods. In addition, the inappropriate behaviors of food stealing and hand feeding were decreased. Results indicated that all residents learned to use their spoons properly. Attitudes of the nursing staff towards the residents were noted to have improved and ward efficiency was shown to have increased. (Author/CB)

ABSTRACT 32960

EC 03 2960 ED N.A.
Publ. Date Jun 71 5p.
Martin, Garry L. and Others
Operant Conditioning in Dressing Behavior of Severely Retarded Girls.

EDRS not available
Mental Retardation: V9 N3 P27-31 Jun 1971

Descriptors: trainable mentally handicapped; behavior change; self care skills; exceptional child research; mentally handicapped; operant conditioning; females

The article discusses results of procedures used to teach self-dressing to trainable mentally handicapped girls. Eleven girls, aged 7 to 20 years, were entered into the operant conditioning program. Such procedures as putting on a sweater, lacing and tying shoes, and putting on underwear were broken down into steps and administered one at a time. Social reinforcement and token reinforcement were used to stimulate behavior. Improved performance of subjects was noted as generalizing to the ward situation. (CB)

ABSTRACT 32964

EC 03 2964 ED N.A.
Publ. Date Jun 71 5p.
Watson, Luke S., Jr.
Program Profiles: Shaping and Maintaining Behavior Modification Skills in Staff Members in an MR Institution: Columbus State Institute Behavior Modification Program.
EDRS not available
Mental Retardation: V9 N3 P39-43 Jun 1971

Descriptors: exceptional child research; mentally handicapped; behavior change; institutional personnel; institutions; reinforcement; program descriptions; community role; trainable mentally handicapped; Ohio

An institutional-community behavior modification program established at Columbus State Institute to habilitate trainable and custodial mentally handicapped residents is discussed. Utilization of contingency reinforcement with the staff as well as with the residents is a major strategy of the program presented. Two secondary goals are to provide a training facility for persons who will be involved in behavior modification programs elsewhere, and to train workers who will provide manpower for a community behavior modification program. The make-up of the institution staff and the functions they serve in the program are described. The community phase of the program (staff, organization) is briefly described as well. Training, involving classroom training and ward internship, is detailed. Reinforcement techniques used in the program are also presented. The researchers note that the contingent reinforcement appeared to be effective in shaping and maintaining behavior modification skills in staff. (CB)

ABSTRACT 32965

EC 03 2965 ED N.A.
Publ. Date Jun 71 4p.
Kucera, J.
Leukaemia and Twinning Tendency in Families of Children with Down's Syndrome.
EDRS not available

Journal of Mental Deficiency Research:
V15 N2 P77-80 Jun 1971

Descriptors: exceptional child research;
mongolism; genetics; mentally handi-
capped; twins; family characteristics;
surveys; leukemia

The occurrence of Down's syndrome,
leukemia and twinning within families
was investigated. A sample of families in
Bohemia with children having Down's
syndrome, born between 1961 and 1966,
were sent questionnaires. Twenty-one
leukemic subjects were found in the 801
families of children with Down's syn-
drome. A significantly greater number
were noted to be in the families of moth-
ers than of fathers. It was also noted
that twinning occurred in nearly half the
families in which cases of leukemia oc-
curred. The researchers felt the occur-
rence of twinning and leukemia in moth-
ers' families suggested a tendency to-
ward abnormal cell division. (C'D)

ABSTRACT 33014

EC 03 3014 ED N.A.
Publ. Date 71 168p.
Balthazar, Earl E.
**Balthazar Scales of Adaptive Behavior
for the Profoundly and Severely Men-
tally Retarded: Section 1, Parts 1-4.**
EDRS not available
Research Press Company, 2612 North
Mattis Avenue, Champaign, Illinois
61820 (\$7.25 Set).

Descriptors: exceptional child research;
mentally handicapped; trainable mentally
handicapped; custodial mentally handi-
capped; behavior rating scales; self care
skills; skill analysis; institutionalized
(persons); staff role; guidelines

Designed to yield objective and standard-
ized measures of behavior based on ac-
tual observations, the Balthazar Scales
of Adaptive Behavior (BSAB) measure,
rank, order, and classify the self-care
behaviors of eating, dressing, and toilet-
ing in the profoundly and severely men-
tally handicapped. The BSAB may be
used to design or develop behavioral
programs, to measure and evaluate ongo-
ing or independently developed pro-
grams, to group subjects for classifica-
tion purposes, and in research. The
BSAB instructional material consists of
the Professional Supervisor's Handbook,
the Rater Technician's Handbook, the
Program Scoring Forms, and the Work-
shop and Training Manual. Raters of
behavior are chosen from existing insti-
tutional staff and can be trained in a few
days following directions in the Rater
Technician's Handbook. The Program
Scoring Forms are designed to remain in
the permanent file of each patient so that
progress can be ascertained. The Work-
shop and Training Manual furnishes

means to identify and explore unfamiliar
points in BSAB administration. (C'B)

ABSTRACT 33026

EC 03 3026 ED 054 550
Publ. Date 71 55p.
McGee, Jerry and Others
**Showing Progress: A Systematic Eval-
uation of Oregon's Program for the
Trainable Retarded.**
Oregon State System of Higher Educa-
tion, Monmouth
EDRS mf,hc

Descriptors: exceptional child research;
trainable mentally handicapped; program
evaluation; motor development; language
development; mentally handicapped; self
care skills; Oregon

An evaluation was conducted on the
effectiveness of classroom services au-
thorized by 1969 Oregon legislation and
provided to trainable mentally retarded
(TMR) children between 4 and 21 years
of age. During the 1969-70 school year,
services were provided to 483 TMR
children in 15 different projects adminis-
tered by the Mental Health Division and
14 agencies contracted by the Division.
Change evidenced by TMR students in
the areas of self help skills, language
development, and motor development
was measured by Gunzberg's Progress
Assessment Chart, Parsons Language
Sample, and Teaching Research Motor
Development Scale, respectively. Scales
were used to evaluate students (368 were
both pre- and posttested) in all 15 pro-
jects in October 1969 and again in April
1970. Thirty-five tables and graphs report
the t-test values obtained for the TMR
population in each of the three measures
and in each of the subtests of each mea-
sure, t-test values determined by school
for each measure and subtest, and t-test
values by age level for each measure and
subtest. Based upon comparison of pre-
and posttest scores, it was concluded
that TMR children along the entire age
span of 4 to 21 years could and did learn
from well-organized, structured pro-
grams, in spite of the variables unique to
each program. (KW)

ABSTRACT 33028

EC 03 3028 ED 053 524
Publ. Date Jan 70 79p.
Rickert, Devoe C.; Morrey, James G.
**Parent Training in/Precise Behavior
Management with Mentally Retarded
Children. Final Report.**
Utah State University, Logan
Bureau of Education for the Handi-
capped (DHEW/OE), Washington, D. C.

EDRS mf,hc
OEG-8-9-542135-2023(032)

Descriptors: exceptional child research;
parent role; precision teaching; parent
education; mentally handicapped; behav-
ior change; child rearing

The purpose of the study was to explore
the effect on parents and children of
training parents in the use of the preci-
sion teaching approach to behavior modi-
fication in an effort to increase their abil-
ity to manage retarded children at home.
During a 10-week training period, parents
learned the modification procedure
evolved by Ogden Lindsley and were
successful in managing behavior. Of the
20 families who attended the first group
meeting, only six attended more than
two sessions although 10 others offered
what were considered to be good reasons
for discontinuance. Individual case stud-
ies are cited which reveal the immediacy
of the changes in most instances, and
tables and graphs report this information.
Projects that were only marginally signif-
icant or not amenable to statistical evalu-
ation are also included. Conclusions
were that parents can be trained in pre-
cise behavioral management and can
become independent and creative in its
use. Recommendations concern reduc-
tion of attrition rate, simplified rate data
forms, and use of a specific text. (RJ)

ABSTRACT 33102

EC 03 3102 ED N.A.
Publ. Date Jul 71 9p.
Stein, Zena; Susser, Mervyn
**The Preventability of Down's Syn-
drome**
EDRS not available
HSM:IA Health Reports; V86 N7 P650-8
Jul 1971

Descriptors: exceptional child research;
mentally handicapped; mongolism; pre-
vention; females; demography; incid-
ence; age differences

A model was developed to analyze the
extent to which fertility control in older
women would reduce the prevalence of
Down's syndrome in an actual popula-
tion. Demographic data for New York
City from 1953 through 1967 were used
to estimate both incidence at birth and
survival rate. Data presented suggested
that prevention of the syndrome in off-
spring of women aged 35 years and over
would amount to a reduction of 43% of
Down's syndrome and could have led to
a reduction of 9 to 14% in the prevalence
of severe mental retardation. The au-
thors advocated and briefly discussed
four preventive measures to reduce in-
cidence of Down's syndrome at birth:
education, birth control, prenatal diag-
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